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Educational News and Editorial Comment

INITIATING FRESHMEN

A number of colleges inaugurated this year an experiment in the careful initiation of Freshmen into college. The University of Chicago, Harvard University, and the state universities of Maine and California summoned the Freshmen to appear on the campus some days in advance of the opening of college. The newcomers were registered early for their courses and were given various kinds of information in an effort to make it easier for them to take on the new mode of life to which they were being introduced.

The *School Review* will be able to give its readers in the next issue a detailed account of one of these experiments. Such a statement may serve to inspire high schools as well as other colleges to attack the difficult problem of inducting new students into the institution.

The experiments which have been tried up to this time differ somewhat in detail. In some cases the college has contented itself with a number of lectures informing the Freshmen with regard to their rights and duties. In other cases the lectures have dealt more fully with such intimate personal problems as caring for one's health, properly arranging one's finances, learning methods of

study, and considering one's future vocation and the methods of specific preparation. Sometimes the social side of the program has been elaborated by receptions and informal gatherings in which the Freshmen have been made acquainted with one another and with the officers of the institution.

No one can doubt that this method of receiving entering students will lead to more successful work in the college courses. The wonder is that the experiment has to be described as a novelty. The students of earlier generations have certainly felt the awkwardness of their ignorance. The buildings are strange, the campus bewildering, and the new methods of holding classes wholly unfamiliar and often disconcerting. Institutions have left the initiation of newcomers to the rude hospitality of youth. Here is a new attitude and a more refined method of procedure. We shall doubtless hear more of it in the future.

UNIFORM TESTS ADMINISTERED TO COLLEGE FRESHMEN

Fifty or more colleges gave uniform general intelligence tests this autumn to the incoming Freshmen for the purpose of obtaining records of the comparative intelligence of the members of the entering classes and for the purpose of discovering how far the records thus obtained agree with the grades later received in college courses. The American Council on Education is sponsoring the undertaking and is arranging for a comparative study of the results. A series of tests prepared by representatives of several institutions was sent by the council to all colleges which indicated a willingness to co-operate. The final reports on correlations between the results of the tests and the rankings in college cannot be prepared until next summer. In the meantime, each institution will be supplied with comparative scores which will indicate the relation of its entrants to the whole group tested. The further advantage within the institutions will be in the information yielded with regard to the alertness and general knowledge of the individual students.

The enterprise is significant from many points of view. It shows that colleges have finally reached the point where they are interested in participating with the lower schools in the effort

to put their administration on an exact quantitative basis. It also shows that a spirit of co-operation is being developed among the higher institutions which have heretofore been rivals of one another or isolated units operating with independent and wholly undefined standards. Fortunately for the experiment, the participating colleges range from some of the largest colleges connected with universities to a number of small colleges of liberal arts.

The American Council on Education has been in existence since the war and has gradually been drawing the higher institutions of the country together in co-operative work on various administrative projects. This is the most conspicuous example thus far of its entrance upon an inquiry in the strictly instructional field. Heretofore, the council has dealt with such matters as foreign educational relations, national legislation, and educational finance. It organized about two years ago a central committee on standards for the accrediting of colleges and thus prepared the way for the promising step which has now been taken.

ADOLESCENCE

The National Health Council is publishing through Funk and Wagnalls Company a series of booklets on health. One of the most recent additions to this collection is a book entitled, *Adolescence: Educational and Hygienic Problems*. This book was prepared by Maurice A. Bigelow, of Teachers College, and has an introduction by Lewis M. Terman.

It points out the fundamental absurdity of that extravagant type of psychology which has, in recent years, been current, according to which the adolescent period is described as something distinctly cataclysmic and revolutionary. G. Stanley Hall's phrase "a new birth" is repudiated in no uncertain terms, and the emphasis often laid on sexual impulses is replaced by a very much more wholesome account of the steady development of the individual which is characteristic of all natural growth.

Adolescence has often been misunderstood, and much sentimental nonsense has been written about this period. Teachers and students of education will have their thinking much cleared up if they will recognize adolescence as neither more nor less impor-

tant than any other period of development. Its characteristics are determined very naturally by the physical and mental progress of the child toward mature adulthood.

Professor Bigelow emphasizes the continuity of development in the following paragraphs:

The accepted facts of recent psychology, like those of physiology, do not indicate any revolutionary change in the pubertal years. On the contrary, continuity of development appears to be as true of the nervous system as of any of the nutritive organs, and hence the well-known progressive improvement of psychical functions is correlated with, or the result of, the more and more perfected mechanism. The present tendencies of the so-called "psychology of adolescence" are toward regarding mental development from early childhood to adulthood as a continuous series of processes with no decided characteristics which may be noted as peculiar to either the preadolescent or adolescent periods.

Such, in general outline, are the demonstrated facts on which rest the interpretation of life from early childhood through adolescence as a continuity in all the essential features of the individual's physical growth and mental development. In fact, so continuous is the progress of the average child from preadolescence into adolescence that the ten years from eight to eighteen are far more important for health and education than the years from fourteen to twenty-four. It is not, therefore, logical or useful in hygiene or education to consider adolescence except as the continuation of childhood into the final stages of complete development of a human being.

THE SUPERIOR HIGH-SCHOOL PUPIL

Charles Deich, of Simpson College, and Elmer E. Jones, of Northwestern University, have recently published, in the form of a bulletin of the Bureau of Education, *A Study of Distinguished High-School Pupils in Iowa*. The method and purpose of their study are described as follows:

This study has been undertaken for the purpose of throwing light on the technique of achievement which these superior students have shown in their high-school work. They have been asked to fill out, under the direction of the principals and superintendents, an elaborate questionnaire pertaining to every phase of their activities and intellectual pursuits. This has been done in the hope that some fundamental principles may be established which may be of service to the profession of teaching, especially in discovering such students and stimulating them to their highest effort.

The following is a summary of the results:

For the group as a whole, we may conclude that strong native ability is the dominant factor which is responsible for their success. Nornworthy and

Whitley maintain that the majority of the children who are advanced in school work are taller and heavier than the average for their age and that such children will maintain and finish their course earlier than the usual age and will by no means be found occupying the lower stations of life. They state that at least 90 per cent of the precocious children owe their powers to hereditary endowment, while a few gain distinction by extra time given by teachers and parents or others.

The home conditions of this group have been far above the average. The parents have been active and progressive in their respective professions and callings. This activity in connection with their keen interest in the education of their children has doubtless been responsible for the students' taking an unusual interest in gaining an education. Many of them have had advantages of country influences which are claimed to be conducive to the development of high moral and intellectual standards.

These pupils have an inherent desire to learn. Their ambitions and life-plans all show a much higher standard than those of the average student. Almost all of the group will continue their intellectual pursuits in college or university, while a large percentage are looking forward to this training with a definite profession in mind.

Study methods have been of little avail in helping them to learn. They have excellent native powers of concentration and possess clear minds, which have enabled them to grasp ideas and hold them. A few methods which have apparently been helpful to them may be mentioned. A very large percentage of them have made it a point to review previous lessons, even when not asked to do so by the teacher. Going over points mentally and in particular just before going to class is common to 62 per cent of them. Sixty-two per cent plan and formulate questions which might arise in the recitation, and 81 per cent review the outline of the text when preparing for an examination. However, their achievement has been due chiefly to fine qualities of mind and special capabilities to perform the high-school tasks assigned them without much reference to special methods of study or teachers' devices.

It is evident that exceptional ability must rest upon some psychological basis and, if discovered early in an individual's career, much may be done to direct and control his educational work in a scientific manner. Angell believes that all of the more conspicuous forms of exceptional ability have a high degree of internal association, which is a good form of mental activity and would account in part for the psychological basis of genius. . . .

Many believe that the accomplishment of any person depends almost entirely upon the training and education which has been given from without and that any child, regardless of what its heredity may be, if trained in the proper way from early infancy, will develop into an exceptional individual. It is true that if no suitable environmental conditions or training should be given a child there would be no opportunity for him to develop, since mental action must remain dormant if not surrounded by some external stimuli. On

the other hand, it is just as true that the mentally deficient child cannot be developed into mediocrity, even though he be placed in the best of environment and subjected to the most skilful instruction. The relative value of heredity and environment becomes a complex problem for educators. While it is true that degeneracy runs in some families and exceptional ability runs in other families, yet the child who is born in the degenerate family is subjected to poor environment, while the child who is born in the family of exceptional ability evidently has a much better environmental atmosphere.

In considering the above-mentioned problems, it is safe to say that we should not expect the mediocre child to become distinguished, even though given the best of training. In the animal world it is easily observed that animals of each species are born with certain limitations which in a large measure will govern the life they live. It may be said of the child of exceptional ability that he is in a certain sense relatively independent of the instruction which the school can give him. But he needs wise direction. His native energy puts drive into his work, but he needs someone to help him see his own destiny and shape his energies toward achievement of that destiny. The teacher should assist only in so far as it is necessary to enable him to make his own self-discovery. It is evident that some superior children receive but little benefit from the school because the school fails to assist them in making their self-discovery. The best work is always accomplished by any child when he becomes the real discoverer of himself in the task he is doing. Nor must he be satisfied alone by mere discovery in his task but must find the expression of his discovery in doing the thing.

If true, these statements are of the greatest importance. They raise grave questions that will certainly be made subjects of extensive discussions in the future. They represent an extreme type of what has been called by Professor Bagley "educational determinism." It is well for our thinking that such conclusions should be clearly and explicitly formulated if they seem to be borne out by the facts, even if future evidence compels their revision.

The truth is probably not fully covered in these extreme statements. Analytical studies, such as those of Professor C. E. Spearman in England and those which are issuing from educational laboratories in this country, seem to show that mental ability is not a quality which can be explained by a simple formula. Mental ability is a composite. The factors contributed by heredity are doubtless important, but it is too extreme to assert that they are absolutely determinative.

EDUCATION FOR ADULTS

The following items, which appeared in recent issues of the *New York Times*, are significant indications of the fact that education is no longer a matter of the schools and of early life. It is also obvious from the second item that there is, in all grades of schools, an urgent need for information which is impartially organized and representative of all interests. There certainly can be no objection to the unlimited extension of education, but the courses which are given should be free from any appearance of being partisan propaganda.

The University in Overalls is the name generally applied to the Frontier College established by the Canadian government to educate the workers in the lumber and construction camps, according to the *Railway Clerk*, official organ of the Brotherhood of Railway and Steamship Clerks. In a recent issue the founder and the aims of the college are discussed.

"The aim of the college," says the writer, "is to bring education to all workers in places where schools are not provided. Through its efforts every outpost, settlement, camp, and factory in Canada which is not adequately served by existing educational institutions will ultimately be supplied with well-equipped instructors and facilities for continued learning.

"The idea originated in the mind of Alfred Fitzpatrick, who in 1909 started classes in the camps of Ontario under the name of 'The Reading Camp Association.'

"Since its inception, the college has sent out more than 700 instructors into camps and various provinces, and each year approximately 1,500 men receive instruction in all kinds of school work, ranging from simple arithmetic and English for foreign-born to higher mathematics and advanced work for university students.

"The staff consists of fifty-five instructors. They work in the gangs with the other men and turn teachers in the evening after the regular day's work is done.

"The founder of the Frontier College, in his book, *The University in Overalls*, sees the function of a real university to come to the people, right where they perform their daily labors.

"Education must be obtainable on the farm, in the bush on the railway, and in the mine," he (Fitzpatrick) writes. "We must educate the whole family, wherever their work is, wherever they earn their living, teaching them how to earn and at the same time how to grow physically, intellectually, and spiritually to the full status of their God-fearing potentialities."

"The Canadian government supports the college."

The first Summer labor school in the history of trade unions in the East has just closed its session, and leaders in the movement declare that it was a success and that the plan undoubtedly will be extended throughout the country.

The session was held at Brookwood College, Katonah, New York, and members and officials of more than a score of national organizations attended. A report of the proceedings shows that every morning of the session attention was directed to some pressing labor problem. The discussion was opened either by a trade unionist who has practical experience in the matter or by an expert who had investigated the subject. This leader presented the salient facts and opened the possible lines of discussion, which brought full and frank expressions from the class of more than one hundred men and women. Frequently discussions on one subject lasted for more than three hours.

One of the first discussions was on the coal mining industry. An official of the United Mine Workers declared that millions of dollars are being collected in royalties by the descendants of those who bought mining property for a song in the old pioneer days. Quoting from statistics, he declared that accidents in the mines annually outnumber the wounded in the American army during the world-war and that two miners suffer death every day the mines are worked.

Other problems discussed included labor's responsibility in production, company unions, labor banks, labor press, and extension of trade unionism. Such authorities as Stuart Chase, Otto Beyer, Dr. William M. Leiserson, Norman Thomas, and Leroy Peterson, all industrial students, took leading parts in the discussions. The problem of 8,000,000 women in industry, less than 5 per cent of whom are organized, was presented by Miss Theresa Wolfson, who has been studying the subject in co-operation with the American Federation of Labor, which is planning a great campaign of organizing women workers.

New York City's Typographical Union, known as "Big Six," had a representative there in Miss Ellen Kennan, who conferred with students who were interested in the problem of teaching English to workers. She explained the work being accomplished by the union's school for printers' apprentices.

Dr. Alfred D. Sheffield, of the Boston Trade Union College, held several conferences on the subject of conducting meetings of shop committees, executive committees, locals, and conventions, and pointed the way to "give all members a chance to express their point of view and prevent professional orators from monopolizing all of the time and keeping the meeting from arriving at intelligent and workable decisions."

The report of the proceedings emphasized the warning given during the session by several speakers, that those interested in workers' education should not try to go too fast and that no teachers should be employed who have not had contact with the labor movement or teachers who "undertake to be witty at the expense of their classes and incur the suspicion of the workers, who, like all other students, dislike the teacher who seems to take advantage of them and expose them to ridicule by his cleverness." It was also pointed out that many adult workers, when the word "education" is mentioned, think

immediately of the school of their boyhood, where they studied subjects in which they displayed little interest under teachers who failed to stimulate thought and imagination. To overcome this it was urged that union publicity must make clear the difference between that kind of education and education according to the modern methods, such as are employed in workers' classes.

The report closed with the statement that the summer session, the first ever held in this country east of the Mississippi, marks a new step in the workers' education movement "to which so great an impetus was given last fall when the American Federation of Labor at its Portland convention, made workers' education an integral part of the American labor movement."

DETROIT HIGH-SCHOOL TESTS

The country has learned to think of the Detroit school system as the place where school tests have been used in the greatest variety and with the most persistence. It is interesting, therefore, to note how far the summary of last year's work, published in the September issue of the *Detroit Educational Bulletin*, contains direct reference to the work of the high schools. The showing with regard to the number and quality of tests used in the high school is, on the whole, somewhat discouraging as contrasted with the showing made for tests in elementary-school subjects. Practically all of the work of the lower schools is reported as thoroughly tested and standardized. In the high school only a few subjects are referred to, and these are not the subjects usually thought of as constituting the central and important part of the curriculum.

The following is the entire section on the "High School":

The tests used this semester include the Beverley Grammar Test, used in Grade 10 at the end of the semester; the Kepler Freehand Lettering Test, used in Mechanical Drawing 1 and 2 classes at the beginning and the end of the semester; the McAdam Domestic Science Tests, used in Home Science 1 and 2 classes at the end of the semester; the Rivett Chemistry Test 8 on Equation Writing, used in Chemistry 1 and 2 at the end of the semester. The results are here expressed as medians for the city as a whole.

FREEHAND LETTERING

The freehand lettering test consisted of lettering the test material under standard conditions. The number of letters written per minute was counted; the papers were then scored for quality by the Detroit Freehand Lettering Scale; the scores were tabulated on a record sheet to obtain a single score for the class, called the point score, which takes into account both rate and quality. The "point score" is based upon scores which represent the degree of skill in freehand lettering deemed desirable. When every student in the class has

attained this standard of rate and quality, the class score is 1,000 points, the highest score possible. The method of tabulation provides for the distribution of scores into five groups according to ability, so that each student (and his teacher) may know his position at the time of the initial test and may observe his progress during the semester toward the standard.

Three kinds of scores are shown: the retabulation score, which is the score made on the initial test by the students who took both the initial test and the final test; the final score, which is the score made on the final test by the same students who took both the initial test and the final test; the percentage of possible gain, which is the percentage the gain is of the possible gain from the retabulation score to 1,000.

The five schools which reported results vary widely among themselves, particularly in the amount of growth during the semester shown by the percentage of possible gain.

The city median retabulation and final scores and percentages of possible gain are substantially higher in 1924 than in 1923.

FREEHAND LETTERING SCORES

	Course 1	Course 2
City, 1924:		
Retabulation, February, 1924	613	758
Final, May, 1924	775	853
Percentage possible gain	42	39
City, 1923:		
Retabulation, February, 1923	519	644
Final, May, 1923	719	728
Percentage possible gain	42	24

HOME SCIENCE

Three different tests were used. Test I measures the girl's knowledge of the classification of foods; Test II measures her knowledge of their function; Test IV measures her ability to organize the procedure in the preparation of a luncheon.

The high-school results this term may be compared either with the intermediate-school results for the same test or with the high-school results for the first semester 1923-24.

In the knowledge tests, I and II, large gains over the corresponding January city medians are apparent in all courses. The gains occur especially in rate but also in score. Furthermore, the medians increase from course 1 to course 4.

Again, in the organization test, IV, large gains over the corresponding January city medians are evident.

Comparison with 7 B medians shows that on Test I, high-school courses 1 and 2 are below the 7 B median scores, though above on rate. On Test II,

all high-school courses are as high as or higher than the 7 B in both rate and score. On Test IV, the high-school median scores are very much higher than the corresponding medians for Grade 7 A, where this test is given in intermediate schools.

HOME SCIENCE SCORES—(JUNE, 1924)

	Course 1		Course 2		Course 3		Course 4	
	Score	Rate	Score	Rate	Score	Rate	Score	Rate
Test I—Classification:								
Median, June	77.5	21.8	80.8	19.1	87.5	22.5	87.5	17.3
Median, January	75.8	14.7	72.7	15.3	63.5	15.2	.....	.....
Median, 7 B intermediate	86.0	16.7	86.0	16.7	86.0	16.7	86.0	16.7
Test II—Function:								
Median, June	85.0	21.0	90.8	21.7	90.0	25.5	77.5	21.7
Median, January	76.9	16.2	82.5	17.0	90.0	18.4	.....	.....
Median, 7 B intermediate	86.0	17.0	86.0	17.0	86.0	17.0	86.0	17.0
Test IV—"Luncheon":								
Median, June	55.0	.....	44.2	.....	50.0	.....	42.5	.....
Median, January	36.6	.....	30.1	.....	28.7	.....	.....	.....
Median, 7 A intermediate	41.0	.....	41.0	.....	41.0	.....	41.0	.....

GRAMMAR

The grammar test consisted of four parts: parts of speech, types of sentences, constructions, and phrases and clauses. Each part was scored and reported separately so that it is possible to observe the differences in performance on the different divisions of the test.

The same test was taken at the same time and under similar conditions in the eighth grades of elementary and intermediate schools, so that comparisons are possible not only between high schools but also between the tenth and the eighth grades.

The medians for the different high schools are fairly constant. On "Parts of Speech," the medians range from 10.1 to 12.5; on "Types of Sentences" from 4.6 to 6.6; on "Construction" from 6.9 to 10.1, and on "Phrases and Clauses" from 5.2 to 8.8. However, the actual individual scores on each part of the test include every possible score. That is, there are tenth-grade students in practically every high school who make a zero score on one or more parts of the test; on the other hand, there are other students who make a perfect score on one or more parts of the test.

The ratios of the actual medians to the possible scores give indications of the relative degrees of control in the different parts of grammar tested. Thus the high-school median on "Parts of Speech" is 11.7 or 90 per cent of the possible

score, 13; the median on "Types of Sentences" is 5.6 or 80 per cent of the possible score, 7; the median on "Constructions" is 9.0 or 82 per cent of the possible score, 11; the median on "Phrases and Clauses" is 7.3 or 73 per cent of the possible score, 10.

As might be expected, the tenth-grade scores are, on the average, higher than the eighth-grade scores. However, the eighth-grade medians indicate that the language work of the seventh and eighth grades yields substantial control over the common grammatical concepts.

GRAMMAR SCORES—MEDIAN (JUNE, 1924)

	Parts of Speech	Types of Sentences	Construction	Phrases and Clauses
High school—Grade 10.....	11.7	5.6	9.0	7.3
Intermediate school—Grade 8 B.....	9.0	3.9	5.9	4.3
Intermediate school—Grade 8 A.....	10.3	4.2	6.4	5.5
Elementary school—Grade 8 B.....	10.6	4.5	5.8	5.1
Elementary school—Grade 8 A.....	11.0	4.7	6.7	5.5
Possible score.....	13.0	7.0	11.0	10.0

CHEMISTRY

The test used was the Rivett Chemistry Test 8 on Equation Writing, Form B. In this test the student is required to complete and balance twenty chemical equations.

The table shows the medians of course 1 and course 2 in the high schools from which reports were received in June. For comparison, the corresponding medians for January, when Form A was given, are presented also.

The increase in the city median from 8.5 in course 1 to 15.9 in course 2 indicates a considerable growth during the second semester in the ability measured. The city medians in both courses are clearly higher than in the first semester.

CHEMISTRY SCORES

	JUNE, 1924		JANUARY, 1924	
	Course 1	Course 2	Course 1	Course 2
City median.....	8.5	15.9	7.6	12.0

EDUCATIONAL DISCIPLINE

If anyone has any doubt about the fact that social and educational ideas have changed during the last century, let him read the following statement published in the *Colby Echo*, the student paper of Colby College:

In a copy of "Laws of Waterville College" of the year 1925, in the Colby library, these rules are given. Every student was required to attend chapel

services twice each day, and all undergraduates were required to attend public worship on Sunday. On Sunday, the rules say, "Each student shall avoid all unnecessary business, walking abroad, receiving company, and playing on musical instruments."

Other passages make interesting reading:

"No student without permission shall be absent from his room after nine o'clock at night."

"No student shall keep firearms or any deadly weapon whatever. He shall bring no gunpowder upon the college premises; nor shall cats or dogs be kept by students for their private use or pleasure."

"No student shall at any time smoke a pipe or cigar in any of the entries or public rooms of the college, or in or near any of the outbuildings or on the college premises; nor shall any student keep any ardent spirits, wines, or intoxicating liquors of any kind."

"No student shall enter the room of another student at any time without his permission."

"Any student shall be liable to be fined for absence from college without permission, and unexcused, to an amount not exceeding twenty-five cents."

"No student without leave of the President shall eat or drink in any tavern in Waterville; nor shall he attend any theatrical entertainment or idle show in Waterville."

"No student shall make any bonfire, play off fireworks, or be in any way concerned in the same, nor shall he, without the permission of the President, go shooting or fishing, under penalty of admonition or suspension."

INFORMATION ON THE MERIT SYSTEM IN CIVIL SERVICE

The field secretary of the National Civil Service Reform League writes as follows:

We shall be glad if you can arrange to call the attention of your readers to the fact that this organization will send without charge pamphlets concerning the merit system in the civil service—its history, development, and present state—to teachers of civics, history, or current topics classes. Requests for copies should be sent to the National Civil Service Reform League, 8 West 40th Street, New York City.

The information in these pamphlets is accurate and non-partisan.

A BOOK FOR STUDENTS ON HOW TO STUDY

Arthur W. Kornhauser, of the University of Chicago, has compiled a handbook of forty-three pages, entitled, *How to Study*, intended for the use of students in colleges and high schools. The pamphlet is published by the University of Chicago Press. It contains the materials which have been included in earlier student handbooks of this type and has, in addition, some new features.

Chief among these is the emphasis which it lays on the acquisition of good habits of reading.

The quotation of a number of paragraphs on "Training One's Self to Read Rapidly" will give an idea of the general character of the book.

The student who can read rapidly saves an immense amount of time in his studying. This ability is particularly valuable in certain kinds of reading: (1) Rapid reading is a necessity when you have to go through a mass of reading to find material on some special point. The library work involved in preparing a report or term paper usually demands this sort of reading. You wish to find all that you can about a particular man or movement in a score of different history books; or you are to hunt through a vast literature to find the origin and development of some invention or some theory. (2) Rapid reading is a great asset, too, when you are trying to gain simply the general thought or fundamental argument of a piece of writing. Often, for example, you wish to compare the points of view of two authors, or you seek a sketchy familiarity with some field which you have not time to explore carefully. (3) Most important of all, rapid reading is valuable in your ordinary daily studying as a means of obtaining a preliminary bird's-eye view of your topic. The usefulness of a hurried first reading—to be followed by thorough studying—was emphasized in chapters v and vi.

Most students can, with a little effort, greatly increase the speed of their reading. Experiments show that it is not unusual for a person to improve from 50 to 100 per cent in his speed of reading without any loss in the comprehension of the ideas read. Actual evidence does not support the common belief that slow readers make up for their slowness by more thorough comprehension. In general, it is true, rather, that individuals who learn to read rapidly lose almost nothing in their comprehension. They obtain almost as many ideas per page as the slower reader, and they obtain, of course, very many more ideas per minute.

Some definite rules for improving your speed of reading follow:

1. *Keep forcing yourself to read rapidly. Put forth a strong and persistent effort. Urge yourself continually to speed up.* Simple as this sounds, it is the most important of all rules for increasing your reading speed. Continuous effort will very soon bring results, even though you ignore all other rules. Begin today forcing yourself to read rapidly. At first, your comprehension of ideas will be interfered with. But with persistent daily practice you can soon learn to grasp ideas with remarkable quickness. Do not mind mistakes and omissions that occur while you are learning. Read over your lesson *rapidly* two or three times if necessary to get the main ideas; then read carefully for details.

2. *Read phrases and sentences, not words.* Many people pronounce words to themselves in silent reading almost as distinctly as though they were reading

aloud. This habit can best be overcome by the vigorous application of rule 1. The separate pronunciation of words becomes impossible when you speed up the rate of reading. Learn to leap from phrase to phrase and from sentence to sentence. Trust that later sentences will clear up points that remain obscure. *Read for ideas, not words.*

3. *Learn to skip wisely.* "Hit the high spots." Do not be afraid to skip phrases, sentences, and even whole paragraphs, provided you have caught the drift of the author's thought. (Remember that you are going to re-read the matter if it is something to be mastered.) Give special attention to the beginning and end of each sentence and of each paragraph. Often you need only the first and last sentences of a paragraph to get the whole thought. Authors have different habits in this matter, and you will do well to discover in each assignment whether summary sentences are used and whether they ordinarily occur at the beginning or end of the paragraph. Where a book has printed marginal notes or paragraph headings or a detailed table of contents, you can use these to great advantage in skimming the book.

4. *Test yourself every few days to see what progress you are making in speeding up.* Take some book of moderate difficulty and see how many pages you can read in fifteen minutes, *without losing any of the essential thought.* After a few days' practice in speeding up your reading, give yourself another fifteen-minute test in the same book. Continue to do this and keep careful records of the results. To make sure that you are getting the essential thought, write down your idea of what you have read, and then compare these notes with the original material. Keeping note of your actual progress in this way will help you greatly in your determination to improve. You will find a marked increase in your ability to read rapidly and still get the *meaning* of what you read.

THE TREND OF REORGANIZATION IN HIGHER EDUCATION. II

LEONARD V. KOOS
University of Minnesota

Readjustments within present-day higher institutions: (a) accommodations within the separate college.—The major system is not the only evidence that we have of inroads upon the four-year period of liberal education. One who compares any considerable number of recent catalogues of separate four-year colleges with catalogues issued during an earlier period will find accommodations in the present-day colleges which are in the nature of a compromise on the length of the liberal or non-occupational curriculum. The character and frequency of these accommodations can be shown by summarizing the results of an examination of recent catalogues of 227 institutions of the "small-college" type selected at random.

The accommodations may be classified under six main headings: (1) affiliation with universities to give combination arts-professional curriculums, with the first three years in attendance at the college; (2) arrangements to give Bachelor's degrees when the later portions of the four-year period are spent in professional or technical schools elsewhere; (3) preprofessional curriculums two or three years in length without announced affiliation; (4) four-year professional curriculums, such as business administration, engineering, and home economics; (5) professional names in the titles of departments; and (6) professional courses in departments bearing liberal-arts titles. These six types of modification were made by a total of 163 of the 227 colleges or almost three-fourths of all. The total frequency of the accommodations was 539, which is an average of almost two and one-half per institution when all of the colleges are included in the computation and approximately three and one-third when only the 163 institutions making them are included.

While these accommodations to the pressure for abbreviated periods of unspecialized training have been distributed among

six types, they may be roughly divided into two major groups: first, those which show the student how he may complete his liberal training in two or three years and then transfer to a professional school and, second, those which provide for the introduction of professional studies in the institution granting the degree.

There are, of course, colleges that still maintain stubborn resistance to what they look upon as the illegitimate encroachments of utilitarian motives, but they are seen to be even now a dwindling minority. The tendency thus revealed is in striking contrast to the college curriculum of two or three generations ago which was liberal in intent throughout, being fully or almost fully prescribed and offering to the student not even the slightest opportunity for specialization. The changes here described, as in the case of the changes in the type of curriculum offered, are in harmony with what has been shown to be the greater maturity of the college student of the present day and the greater extent of his training as compared with the maturity and training of college students of earlier generations.

(b) *The junior-college line of cleavage in the university.*—It is appropriate at this point to refer briefly to the movement to introduce a line of cleavage between the two lowest years and the remaining years of the university. This does not refer to the presence in this institution of an increasing number of two-year preprofessional curriculums nor to the group requirements for under-classmen and the major system prescribed for upper-classmen in the liberal arts units connected with the university, although there is something in common between these and the division being effected. Attention is directed only to the instances of the junior-college line of cleavage.

At the present time there are six large universities of the West and Middle West operating under the plan, namely, the universities of California, Chicago, Washington, and Minnesota, the Leland Stanford Junior University, and the University of Nebraska, the reorganizations having been effected in the order given.

The major impression obtained from an examination of the junior-college movement within the university is that it seems founded on a conviction that the functions of the lower years of

the university, especially in the college of liberal arts, are to be distinguished, at least in considerable part, from those of the upper years. The upper years are assumed to be the proper place for specialization, whereas the lower years are still to be devoted to general education. The different purposes of the two divisions of the university, coupled with the emphasis on the desirability of having the work in the lower division continuous with that of the high school—not to mention other administrative provisions like that pertaining to guidance—show that the higher institutions are proceeding as if the first two years are really a part of the full period of general or secondary education and that higher education proper begins in the upper unit.

The trend of enrolment in the higher institutions.—Probably few have followed the presentation of the foregoing materials without wondering whether the tendencies shown have been reflected to any extent in the growth of higher education. Of the recent rapid growth of the higher institutions as a whole, all are aware, but interest in this case is concerned with the more detailed aspects of the general situation. Some will be disposed to ask, What is the trend of growth in the several types of higher institutions represented: universities, separate colleges, and professional schools? Are they developing at the same rate, or has there been a tendency from the standpoint of numbers for one or another to dominate the field? Is there any difference among the several types as to the trend of enrolment in the lower and upper years? Is professionalization of curriculums in universities increasing or decreasing, and how does this affect the distribution of students in liberal-arts and professional curriculums? Is the proportional enrolment of lower- and upper-classmen in the liberal-arts units of these institutions increasing or decreasing?

1. The rates of growth in the several types of higher institutions differ from one to another, as shown in Figure 3. The state universities show the most rapid rate, their enrolment in 1919-20 having increased almost 900 per cent over the enrolment in 1888-89. Private universities and other public institutions (state colleges of agriculture and mechanic arts, other separate publicly supported technical schools, and municipal universities) follow rather closely, with increases of 747.1 per cent and 621.3 per cent, respectively.

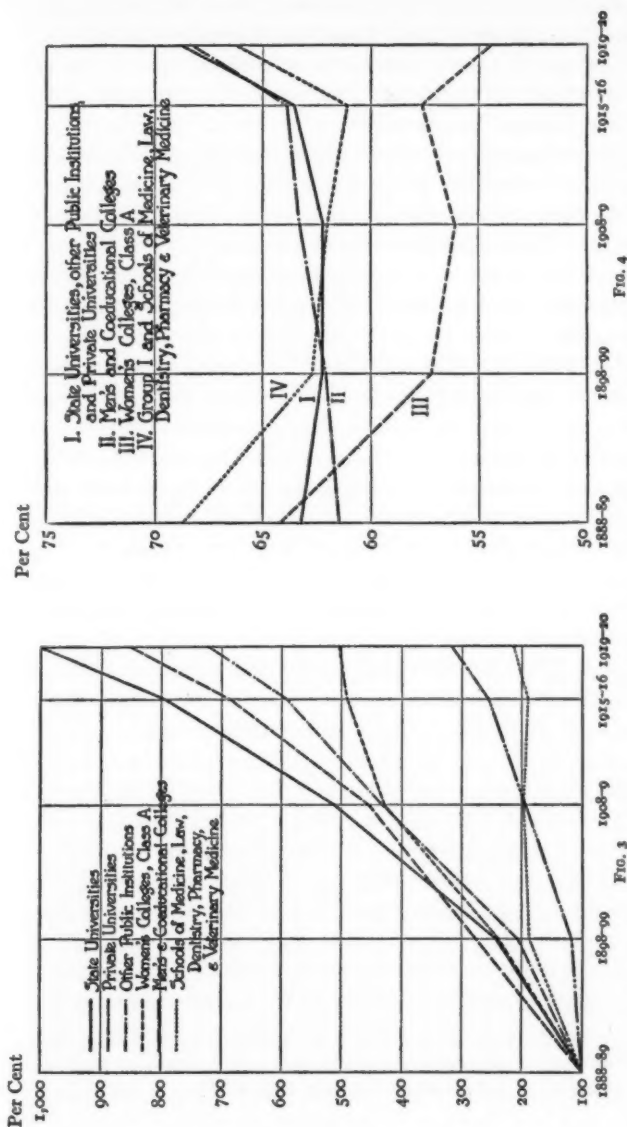


Fig. 3.—Percentages which enrolments at various intervals are of the enrolment in 1888-89 in each of several types of higher institutions.

Fig. 4.—Percentage which the students enrolled in the first two years are of the students enrolled in the first four years of each of several types of higher institutions.

The remaining types appear in the following order, but at some distance from the first three groups named: women's colleges, Class A¹ (404.7 per cent), men's and coeducational colleges (216.9 per cent), and schools of medicine, law, dentistry, pharmacy, and veterinary medicine (112.0 per cent).

2. These differing rates of growth during the period of three decades or more which the data cover inevitably resulted in a shift in the proportional prominence of the types of institution included in the study. From something more than one-fourth of the total enrolment in the groups of institutions considered, the enrolment in state and private universities and other institutions of polytechnic type by 1915-16 mounted to well over one-half, while the enrolment in women's colleges of Class A and men's and coeducational colleges combined dropped sharply during the first decade from more than two-fifths to less than one-third of the whole. When the enrolment for the schools of medicine, law, dentistry, pharmacy, and veterinary medicine is added to the enrolment of the former group of institutions, its position of dominance during the last twenty or more years becomes even more apparent. This fact of numerical dominance may have had something to do with the degree to which separate colleges have in recent years introduced the curricular modifications described.

3. A study of the enrolment in the first and second years and in the third and fourth years in a number of higher institutions of the several types discloses certain significant related tendencies (Fig. 4). If an increase in the percentage which those enrolled in the third and fourth years are of the total—or the converse, a decrease in the proportion in the first and second years—be taken as an indication of increasing efficiency, the women's colleges of Class A have by far the best record. The group of institutions made up of state universities, other public institutions of polytechnic type, and private universities shows no conspicuous change. However, when combined with the schools of medicine, law, dentistry, pharmacy, and veterinary medicine, this group shows marked

¹ Women's colleges, Class B, normal schools, schools of theology, and higher institutions for colored students were not included in the study because of the relative uncertainty of requirements for admission to many of them.

progress toward smaller proportions in the lower years, except for the post-war years, which cannot be regarded as indicative. On the other hand, the men's and coeducational colleges lost ground consistently. This trend is not striking, but it is unmistakable and, in contrast with the situation in institutions with recognized opportunities for occupational training, should give pause to the friends of the separate liberal-arts college.

4. A study of retention and elimination in separate colleges and of the destination of students transferring from these colleges affords findings of significance in this connection (Fig. 5). In thirteen good colleges in the Middle West the percentage of students who remain for their third year is 49.0. In other words, the separate college serves as a junior college for a majority of the entering students. The facts presented lead to the expectation that this will become increasingly true. A second finding concerns that special group of students eliminated who transfer to other institutions before completing the four-year curriculum. It was possible to ascertain the destination of 219 students transferring, 86 from eight eastern colleges and 133 from thirteen mid-western colleges, of whom a total of 182, or 83.1 per cent, shifted to universities or other institutions where professional training is available.

5. A count was taken of all professional schools in eighteen large universities of the country for each half-decade for the period beginning with 1894-95 and ending with 1919-20. The average numbers of professional schools per university, not including colleges of liberal arts and graduate schools, were 4.2, 4.9, 5.2, 5.9, 6.5, and 7.3, respectively. These figures show a steady growth. There is little need of mentioning the particular schools that were added except to state that the earlier additions were in fields long associated with professional training, such as medicine, law, and engineering, while in the later years the more frequent additions were in commerce and education.

6. The same group of universities—six eastern and twelve mid-western, western, and southern institutions—were studied as to proportional enrolments as follows: the percentage of the total enrolment (a) in the college of liberal arts, (b) in the junior-college years of the college of liberal arts, and (c) in the senior-college years

of the college of liberal arts; the percentage of the total liberal-arts enrolment (*d*) in the junior-college years and (*e*) in the senior-college years; (*f*) the division of junior-college and senior-college liberal-arts enrolments as to men and women, etc. From these computations may be drawn several conclusions highly pertinent to the problem of organization in higher education. For the eastern universities the most notable change shown is the steady decline in the percentage which those enrolled in the last two years of the liberal-arts enrolment are of the total liberal-arts enrolment (Fig. 6). The downward trend is not rapid but so consistent as to be unmistakable, dropping by small steps from 45.9 per cent to 40.6 per cent. Correspondingly, the percentage which the junior-college liberal-arts students are of the entire student body shows a tendency to increase. The decline of the senior-college liberal-arts group for the mid-western, western, and southern universities is not as consistent, but it is nevertheless apparent. Other tendencies in harmony with these are to be noted, but the most important is the shrinkage in the percentage of men in the senior-college years of the liberal-arts unit from 60.1 in 1894-95 to approximately two-thirds of this percentage in the later portions of the quarter-century at the same time that the men were much more nearly holding their own in the junior-college years.

The decrease in the percentage of students, especially men, in the senior-college years of the non-occupational curriculums would without doubt have been even greater if account could have been taken of those registered in the special occupational programs announced in the catalogues but administered by the liberal-arts unit.

Professionalization of training for women is lagging behind that for men, as may be judged from the increasing proportion of women in the senior-college years of the liberal-arts unit. If recent movements affecting the social status and the occupational life of women may be taken as an indication of the developments of the future, the shift that has taken place for men will soon follow for women. The change from departments of education to schools of education is one step in this direction.

The current conceptions of the aims and functions of secondary and higher schools.—The trend of reorganization as shown has the

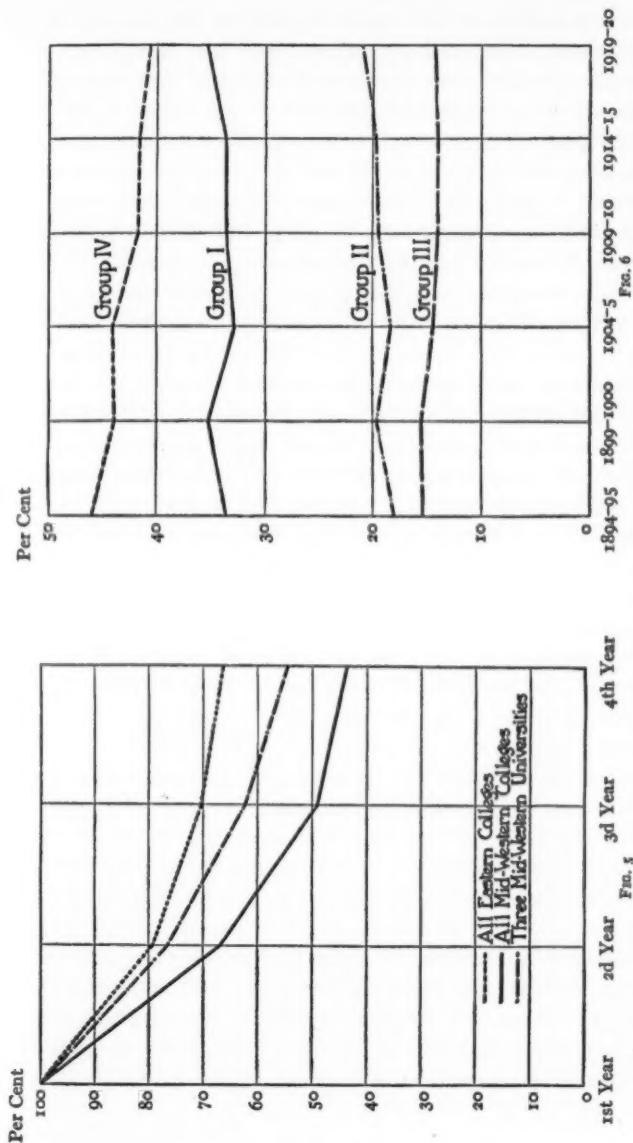


FIG. 5.—Percentage of retention in eight eastern colleges, thirteen mid-western colleges, and three mid-western universities.
 FIG. 6.—Percentage distribution of students to certain divisions in six eastern universities. (Group I, percentage liberal-arts enrolment is of total enrolment; Group II, percentage junior-college enrolment in liberal arts is of total enrolment; Group III, percentage senior-college enrolment in liberal arts is of total enrolment; Group IV, percentage senior-college enrolment in liberal arts is of total liberal-arts enrolment.)

support of the findings of an extended study of the aims of the secondary school, the liberal-arts college, and the university, to which only the briefest reference can be made here. The materials used in the analysis are the conceptions of purposes held by large numbers of leaders in each of the three units represented. Among the chief findings of this study are the nearer approach to unanimity in the secondary-school and the university groups than in the college group, the much greater similarity of college and secondary-school aims than of college and university aims, and, in consequence, the rather sudden break between college and university aims. One who gives careful consideration to the results of this study is almost certain to come to the conclusion that the advent of the junior college will hasten the clarification of the issues centering around the rôle of each of these units in the school system, a clarification that will result in a distinction of rôles not unlike that to be found in the European school systems, in which all general education is relegated to the secondary school and in which the university devotes itself exclusively to professional and other advanced specialization.

The concurrence of the tendencies.—Among the most outstanding characteristics of the tendencies toward reorganization which have been epitomized is their large degree of concurrence. Practically without exception, they show the same general trend, indicating that, whatever the forces, these tendencies are all of a piece. The facts presented are to be regarded as links in a single chain of evidence foreshadowing inevitable and ultimate reorganization of secondary and higher education, a reorganization which involves the acknowledgment of the first two years of college as the typical termination of the period of general and secondary education for those who contemplate going on to higher levels and the beginning of higher education proper somewhere in the vicinity of the present junior year.

The meaning of the tendencies for higher institutions of the future.—Some of our higher institutions, among them both colleges and universities, on account of the effect of tradition and a selected persisting clientèle, will doubtless be able to withstand for a long period the forces of reorganization as presented in this article. It

is not unlikely, moreover, that there may be a place in the American school system for a small proportion of institutions of the type that assumes the longer period of non-occupational training before entering upon the work of the professional school. In the face of the apparently inevitable tendencies of reorganization shown, however, they must come to be regarded as atypical, the prevailing type conforming to the trend of reorganization as disclosed. The consummation of this type, bringing with it the upward extension of the secondary school by the inclusion of the junior-college years, will go far toward justifying those claims of the friends of the new unit who insist that it will place in the secondary school all work appropriate to it, foster the evolution of the public school system, and make possible real university functioning.

The future of the university and of other higher institutions of the polytechnic type in this impending reorganization is much more clearly discernible than is the future of the separate four-year college and the normal school or teachers' college. It is doubtless too early to essay prophecy concerning them that will approach realization in any significant degree, but at least some conjecture can be ventured. As admitted, a small proportion of the separate colleges, especially those with a ballast of endowment and a host of well-to-do and tradition-loving alumni, may be able to withstand the inevitable trend and remain institutions affording unspecialized training throughout a four-year period. Most of them, however, must make further accommodations to the trend, serving their generation in the way in which it insists upon being served. In the case of the weaker units this will be as junior colleges which will draw their students from secondary schools in communities too small to warrant the offering of junior-college work. The remaining institutions, for the most part in a better state of development than those just referred to, can serve in the dual capacity of (1) junior colleges and (2) senior colleges in which certain types of liberalized occupationalization and specialization are featured. Few such institutions will be able to afford the variety of opportunities for specialization offered by the universities, but they can devote their energies and resources to one or a few, such as educa-

tion, commerce, home economics, etc. In the remote future the junior-college division may atrophy, and these colleges will then devote themselves exclusively to the senior-college task.

If the future form and function of the separate college are problematic, those of the normal school or teachers' college are even more so. Perhaps, until standards of teacher-preparation rise to appropriate levels, the normal school will recruit most of its students from communities too small to warrant the offering of junior-college work and from among those who desire this type of semi-professional training. As the standards are raised, it is conceivable that the teacher's college with four- or five-year curriculums will come to articulate with the public junior college in such a way as to encourage the prospective student to attend the junior college for two years beyond the present high-school level and to transfer to the teacher-training institution at the opening of his third college year. It seems reasonable to expect that the general establishment of junior colleges will, by making the first two years of college training more easily accessible, hasten the elevation of the standards of teacher-preparation to the strictly professional level.

Although we may question the validity of this prophecy of the future of the two types of institution last considered, one thing is certain: the reorganization of the secondary school and the university along lines involving the incorporation of the junior-college plan will be reflected in them, for the reason that they must adapt themselves to what is to become the dominant organization of the educational system.

THE HIGH-SCHOOL HANDBOOK

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This is the age of handbooks. They are to be found in business, industry, transportation, the professions, religion, the army, and many other organizations and activities where there is a demand for accurate and concise information by means of which the individual will be better able to carry on his work, buy his goods, plan his trip, operate his car, understand organization and administration, etc. Common among such books are time-tables, tourist folders, guide-books, directories, hints, directions, small catalogues, etc. The more diversified and specialized our civilization becomes, the more demand there is for such books, because no individual can specialize in all things. Consequently, when a person goes from his own field into another, if he goes intelligently, he must obtain information and usually obtain it with a minimum expenditure of time and energy. To give this information in concise and convenient form is the function of the handbook.

The same general background of demand responsible for the handbook in business and professional life is responsible for the handbook in educational institutions. The universities have had handbooks for some time, but it is only recently that they have appeared in the high schools. With the rapid growth of secondary schools and the increasing complexity of their educational and social offerings, not to mention organization and administration, there has come a demand for such books. This demand came originally in the case of the larger high schools, but now many smaller schools are issuing manuals and finding them useful. The rapidity with which this newest type of school publication has developed in the high schools may be readily seen when it is considered that a decade ago there were probably not a dozen of these books in existence. There are now a large number of them in this country, and most of them have appeared since the war. The

wide use made of handbooks and manuals during the war undoubtedly gave impetus to the high-school handbook movement. It is not improbable that within a decade the handbook will be the most common of school publications. It is for the purpose of presenting a digest of what is to be found in the books now published, in order to improve present practice and encourage future practice, that this article is written. It represents a study and analysis of 110 handbooks gathered from high schools in all parts of the United States.

In far too many schools the life of the new pupil, especially the Freshman, is an unhappy one. He is "strung" by the upper classmen, is sent off on wild-goose chases in search of the elevator or escalator, is sent to "Mr. Jones" (the janitor) for advice on his schedule, shines shoes, carries the books of the Seniors, unwittingly violates rules and customs, and does many other humiliating things at the request of the Seniors or other pupils in the school. The old jokes of the left-handed monkey wrench in the shop and the check-stretcher in the bank are outdone in many ways by the jokes in the modern high school. This hazing does everything but what the school has a right to expect and demand—that the new pupil will be welcomed to the school and will be made to feel at home as soon as possible. Instead of welcoming him and making him glad that he is there, such a reception does the opposite. It places a wrong emphasis at a most critical time in the life of the pupil. Such pranks are self-perpetuating because it is natural for an individual who has been a victim to victimize others. So the Freshman, when he becomes a Sophomore, takes delight in hazing the new Freshman, often carrying the treatment far beyond what he received. Thus is this vicious circle ever widened.

The new pupil enters a new world, one that he probably knows little or nothing about, and naturally he is tense with excitement. He knows little about the school or what is expected of him. He does not know the teachers, the rules and the regulations, the customs, the school traditions, what programs he is eligible to take, the social organizations to which he may belong, the school songs, yells, etc. In short, he is ignorant, and his ignorance must be dissipated before he can become a real citizen of the school. Knowledge of laws, customs, and regulations is, of course, no guaranty of

their observance, but it is the basis on which intelligent observance is built. Considering the entering class as a whole, with its members from many different homes, schools, and social and occupational backgrounds, it is seen that the making of this mass into a homogeneous group which will be a part of the school as a whole is no small task.

The main purpose of the handbook is to hasten the assimilation of the new pupil. It endeavors to give him, in a concise and compact form, the information which will aid him most rapidly in becoming a real member of the school. It codifies the various rules and regulations of the school, introduces the pupil to the school system, explains the purpose of the school, shows what is offered in educational and social activities, offers counsel and advice, and informs the pupil what is expected of him. So far as values, as distinguished from purposes, are concerned, the handbook helps to educate the parents of the pupils and the patrons of the school; trains the pupils engaged in preparing it for publication by demanding investigation, initiative, responsibility, and co-operation; establishes confidence in the student council or other organization responsible for its publication; unifies the school; and clarifies the ideals and principles of the various school organizations and activities.

What does a school handbook contain? Table I shows the frequency of each item which was discussed in at least one paragraph in ten or more of the 110 books analyzed. Many of these items were mentioned in other books, but no record was made of an item unless at least a paragraph, of any size, was devoted to the topic. No attempt was made to catalogue and classify the numerous pupil organizations and activities. In most cases where these were discussed, a paragraph was given to each one, describing it and stating the qualifications for membership. Table II shows the items which were discussed in less than ten of the books. Thus the two tables give a complete list of all topics, exclusive of specific pupil organizations, discussed in the 110 handbooks.

TABLE I
FREQUENCY OF EACH ITEM DISCUSSED IN TEN OR MORE OF
110 HIGH-SCHOOL HANDBOOKS

Item	Frequency	Item	Frequency
Pupil organizations	96	Athletic records	20
Program of studies	81	Names of club officers	20
Date of publication	80	Space for owner's name, etc.	20
School songs	78	Transfer and discharge	20
Names of faculty members	77	Bulletin boards	20
School yells	66	Regents' examinations	20
Attendance regulations	62	Principal's greeting	19
Pupil constitution	54	Visitors	19
Daily schedule	51	School colors	18
Cafeteria or lunchroom	48	Letter wearers	18
Requirements for graduation	48	Admission regulations	18
Organization publishing hand- book	48	Telephone regulations	17
College-entrance requirements ..	47	Aims of the school	16
Fire-drill regulations	47	School building (not directory) ..	15
Table of contents	46	Advertisements	15
Library information	44	Entering and leaving school	15
School calendar	42	Rules for organizations	15
Rules for athletics	42	Rules for office-holding	14
Directory of building	42	Dedication of book	14
Lockers and wardrobes	40	Smoking regulations	14
History of school	39	Flag salute	14
Pupil schedule blank	39	Employment	13
Marks and marking	38	Pass slips	13
Index	38	Names of members of board of education	12
Lost and found	38	Office rules	12
Scholarships	36	Daily calendar (blank)	12
Promotion and classification	35	Anti-fraternity rule	12
Honor rolls	32	Elevator regulations	12
How to study	31	Use of stairways	11
Reports to parents	31	Book exchanges	11
Registration rules	30	Reading lists (English)	11
Medals and prizes	28	Special equipment (school)	11
Traffic regulations	28	Hospital room	11
Manners and courtesy	27	Alumni association	11
Blank memorandum space	27	School and student creeds	11
Introduction and foreword	26	Trophies	11
Names of handbook staff	26	Care of books	11
Athletics schedules	26	Dress (usually girls')	11
Care of building	24	Definition of credits	11
Home work	23	Evening school	11
Vocational guidance	23	Fees and tuition	11
School counselors	23	Special examinations	10
Study-hall rules	22	Motto	10
Working papers	21	Commutation tickets	10
Pictures in handbook	21	Self-examination scale	10
Textbooks	21	Parking bicycles	10
Examinations	21		

TABLE II

ITEMS DISCUSSED IN LESS THAN TEN OF THE 110 HIGH-SCHOOL HANDBOOKS

A look ahead	Comments on the work of the various departments
Academic letter	Committees of board of education
Addresses (space for)	Community agencies
After school what?	Conduct
Aids to success	Conduct board
Alumni loan fund	Conduct on the street
Alumni loyalty	Co-operation of parents
American's creed	Courtesy to flag
As others see us	Cuts
Athletic heroes	Dance programs
Athletics	Dancing regulations
Auditorium rules	Deans' systems
Autographs (space for)	Discipline
Banks	Dismissal
Be square	Do you know?
Big sisters	Does it pay to go to school?
Book room	Do's and don'ts
Books and supplies	Editorials
Broadening influences	Educational guidance
Caps and gowns	Election board
Cardinal principles of secondary education	Elections
Care of valuables	Endowment fund
Cartoons	English in the school
Chaperons	Entering and leaving classrooms
Character pledge	Examination days
Character records	Excess work
Choosing a college	Expulsion
Choosing an occupation	Failure notices
Choosing your course	Famous alumni
Citizenship	Fathers and sons
Class gifts	Fees
Class mottoes, 1918—	Field trips
Classroom procedure	Finances
Coaching room	First aid
Coat-of-arms	Food for thought
Code of a good sport	Form for written work
Collections	Freshmen mixers
College choices of class of 1923	Gifts
Color day	Girls' clubrooms
Commencement	Girls' uniforms

TABLE II—Continued

Girls' wish	Number of graduates
Good sportsmanship	Number of pupils
Graduates, 1913—	Nurse
Graduates who lose	Office hours
Graduates who win	On holding office
Gum-chewing	Open house
Health hints	Our school
Hints to lower classmen	Parent-teacher association
Home rooms	Parties
Honor banquet	Pass slips
Honor code	Past captains
Honor points	Patriotic songs
Honor system	Patrols
Housekeeping regulations	Permanent record card
How to become a booster	Phonograph
How to do school work successfully	Pictures and statues
How to enter college	Placement
How to reach school	Pledge to school
Ideals	Price of handbook
In memoriam	Procedure on first day
Interscholastic athletic association	Program-making
Keeping fit	Purpose of school
Leadership pin	Purposes of courses
Letter from teacher	Quotations, poetry, etc.
Letter requirements	Reclassification
Loafer rules	Recommendation to college
Loan funds	Rehabilitation work
Location of high school	Requisites for success
Look for Blue Triangle	Rules for parties
Loyalty pledge to the United States	School emblem
Make-up work	School grounds
Marks (effort)	School laws
Marks (standards for)	School spirit
Medical report	Score-cards
Meetings of board of education	Seal
Memory selections	Senior room
Menu suggestions	Senior traditions
Monthly calendar	Sequences
Motto of school	Service opportunities
Moving pictures	Setting-up exercises
Neatness and cleanliness	Slides
Notice to graduates and alumni	Social distractions

TABLE II—Continued

Social life	Tuition
Special excuses	Tutoring regulations
Special students	Typical programs
Stage regulations	Use of gymnasium
State records (athletic)	Useful information
Stores	Ushers
Student aid	Vacation advice
Students' prayer	Value of education
Study periods	Vocational books
Substitute and new teachers	War work
Suggestions for poor spellers	Watch your English
Suggestions to teachers	Welfare committee
Suggestions for writing examinations	What the city has a right to expect
Summer schools	What the college catalogue tells you
Tardy room	What colleges say about our courses of study
Teachers' council	What's what at ———
Teachers' office hours	Who's who at ———
Term colors	Whom to see and why
Theater	Why go to high school?
Thrift	Why you need this handbook
Tickets	Words often misspelled
Time limit for use of building	Words to the wise
To the pupil leaving school	Write-ups (of principal and teachers)
Traditions	Yell books
Training rules	

Few of the handbooks studied exhibit any great attempt at a systematic organization of the materials presented. Examples of well-organized books are the *Book of South High* (Youngstown, Ohio), *Crimson and White* (Hollywood, California), and *Manual of Administration* (Central High School, Tulsa, Oklahoma). Nearly all of the books, however, look as if the material had been hurriedly put together. Some have so-called indexes in the front; most of them are not indexes at all but tables of contents. The arrangement of the material is important when it is considered that the book is to serve for inspirational as well as informational purposes. As yet no one can say whether pupil organizations should precede or follow the program of studies, but it is certain that all of the material should be accurate and classified under appropriate headings if it is to be of the greatest value and readily accessible.

The books which are definitely organized usually follow some such system or plan as follows, though not always in this order: general introduction; organization of school; program of studies; pupil organizations and activities; school routine, customs, traditions, etc. Some books contain a larger number of sections or parts and also use other headings, but, in general, the material may be classified as designated.

In order to give more detailed suggestions as to organization, the following plan is presented. Some of the less important topics have been included with the more important in order to suggest possible classifications. This plan represents a type which the present writer believes to be good practice. Other plans of organization may be just as good or perhaps better. It is probably too incomplete for some schools and too complete for others. It is suggested merely as an elastic arrangement which the individual school may adapt to its own needs. Items under each heading are classified alphabetically and not in the order of their importance.

SUGGESTED ORGANIZATION OF THE HIGH-SCHOOL HANDBOOK

1. Introduction

- Aims of the school
- Creeds, American's and student's
- Date of publication
- Dedication
- Flag salute
- Identification spaces
- Introduction or foreword
- Location of school and how to reach it
- Names of faculty members
- Names of handbook staff
- Picture of school
- Principal's greeting
- School emblem, motto, colors, etc.
- Table of contents
- What the city has a right to expect of you

2. Organization of school

- Advisers, deans, department heads
- Assemblies
- Attendance
 - Compulsory-attendance laws
 - General and special excuses
 - Tardiness

- Building and grounds
 - Directory, floor plans, etc.
 - Lockers or wardrobes
- Calendar of school year
- Daily schedule
- Examinations, regular and special
- General regulations, traffic and fire
- Library, information and rules
- Marks and marking
- Registration
 - Admission
 - Enrolment
 - Transfers and discharges
- Reports to parents
- Signal bells
- Study-hall regulations
- Textbooks
- 3. Program of studies
 - Admission requirements
 - Classification and promotion
 - College-entrance requirements
 - Credits
 - Curriculums and courses of study
 - Graduation requirements
 - Required and elective studies
- 4. Pupil organizations and activities
 - Clubs and organizations
 - Alumni association
 - Athletics
 - Records, regulations, schedules, etc.
 - Band
 - Council
 - Debating
 - Dramatics, etc.
 - Constitution
 - Names of club officers
 - Names of letter wearers
 - Recognitions
 - Honors
 - Letters and numerals
 - Medals
 - Prizes
 - Scholarships
 - Regulations for organizations
 - Rules for office-holders

5. General usages, customs, traditions, etc.
 - Anti-fraternity rule
 - Book exchanges
 - Bulletin boards
 - Care of books and personal property
 - Care of building and school property
 - Dress and personal appearance
 - Home work
 - Hospital room
 - How to study
 - Lost and found
 - Manners and courtesy
 - Office rules
 - Reading lists
 - Scholarships (college)
 - School songs
 - Smoking
 - Telephone rules
 - Trophies
 - Visitors
 - Working papers and certificates
 - Yells and cheers
6. Miscellaneous
 - Addresses (spaces for)
 - Advertisements
 - Index
 - Memorandum (spaces for)
 - Pupil-schedule blanks

The handbook should be of small size in order that it may be easily carried. It has been suggested that the best test of proper size is the measurement of the boy's most convenient pocket. The books studied vary in size from $3 \times 4\frac{1}{2}$ inches to 6×9 inches (larger than the average book). The four most popular dimensions are shown in Table III. Twenty-two additional books were larger than 4×6 inches. It will be seen that the smaller sizes are the most popular. The 4×6 size is not as convenient as the smaller sizes.

As would be expected, the number of pages varies with the size of the book, the size of the school, the size of the type, the number of activities represented, etc. This item, therefore, is of value only in giving a general idea of the size of such books. Table IV shows the

number of pages and the frequency of each classification. In most cases the books could have been a few pages smaller. The extra pages found in many books, usually left blank or designated as "Memorandum," "Addresses," etc., were probably due to the arrangement of the signatures by the printer. The larger books are nearly all from schools in the largest cities. The handbook of the Harrison Technical High School (Chicago) was the largest in the list, having 160 pages.

TABLE III

DIMENSIONS OF 75 OF THE 110 HANDBOOKS

Dimensions in Inches	Number of Books
3×5.....	14
3½×5½.....	15
✓ 3½×6.....	28
4×6.....	18
Total.....	75

TABLE IV

NUMBER OF PAGES IN THE 110 HANDBOOKS

Number of Pages	Number of Book
1-20.....	13
21-30.....	12
31-40.....	12
41-50.....	11
51-60.....	7
61-70.....	9
71-80.....	10
81-90.....	11
91-100.....	9
More than 100.....	16
Total.....	110

About one-half of the 110 books bear the name of the school and the designation of "Handbook." Fifteen of them have just the initial of the school, and occasionally the date of issue, on the cover. The "B" of the Ballard High School (Seattle), the "W" of the West Side High School (Denver), and the "N" of the North High School (Minneapolis) are examples of this type of name. Other names are the *Pathfinder* (East Side High School, Newark), the *Guide* (Waller High School, Chicago), the *Orange and Black Pilot*

(South High School, Minneapolis), and the *Manual of Administration* (Central High School, Tulsa). A number of books are named after the school colors, such as the *Red and Blue* (Central High School, Minneapolis), the *Red and Black* (North Central High School, Spokane; Springfield, Missouri), etc.

Many of the books are bound in the school colors, and a few of them have exceptionally attractive bindings. The *Orange and Black Pilot* of the South High School (Minneapolis), the *Pathfinder* of the East Side High School (Newark), the *Red and Blue* of the Central High School (Minneapolis), *Jefferson* of the Jefferson High School (Portland), *Commerce* (New York City), *Wadleigh* (New York City), and *Harrison* (Chicago) have especially attractive covers. The books are usually bound in paper, although a few, such as the "S" of the Stadium High School (Tacoma) and the book of the University School (Cleveland), are bound in imitation leather. Few of the books have anything printed on the cover except the name of the school or date and occasionally the school seal. The Boise High School handbook carries on its cover the following statement: "The first duty of every student in the Boise High School is to learn the American's creed." The creed is printed just below. Other means of increasing the attractiveness of the book are simplicity of style (it must be written so that eighth-grade pupils can readily understand it), expressive paragraph headings, clear type, and a good quality of paper.

Twenty-one of the books make use of pictures of the building, grounds, principal, etc., to increase interest. The *Guide* of the Stuyvesant High School (New York City) and the *Guide* of the Bushwick High School (Brooklyn) intersperse their material with small clever cartoons. The *P.H.S.* (Portland) was edited by the Correct English Club, and at the bottom of nearly every page there is some pointed statement about grammar or an example of correct and incorrect grammar. A list of "Words Often Misspelled" is also found in this book. "Familiar Words No Boy Should Mispronounce" in the *Red Book* (DeWitt Clinton High School, New York) is another item of the same general type. Bits of poetry and short quotations add to the book, if not overdone. The "Remember's," dealing with ideals and principles, scattered through the

Student's Handbook (San Antonio) illustrate a method of suggesting these things in a non-catechetical way. "Who's Who" and "What's What" are used to some extent. The section "Do You Know" of the Jefferson High School (Portland) book gives many interesting facts about the school and its work, but such items as the number of windows in the building or the number of lights in the halls are probably of no practical value. The book of the East Technical High School (Cleveland) has an ingenious two-page table, "Composite Football Score Sheet, '09-'23," which shows the results of all of the games played, the names of the coaches, remarks, etc. The same book publishes on one page the music to its school song (treble clef, air only) and the words on the opposite page.

In such a book there is danger of too much moralizing. It is easy enough to write a "sermon" on citizenship, and it will be read, but it will probably not affect as many pupils as the same material written in some such form as "If You Wish to Be Thought Well of at ——," used by the Central High School (Cleveland) and other schools. Manners and courtesy may be lectured about but probably not so well presented as in "Do It for South High" (Youngstown) or "The Boys' High Gentleman" (Boys' High School, Paterson). An article on sportsmanship is good, but such articles as the "Code of a Good Sport" (West High School, Akron) and "A Receipt for Athletics" (Erasmus Hall High School, Brooklyn) are of more value because of their appeal. Facts and figures on "Does It Pay to Go to School" (West High School, Akron) are worth more than lectures about it. "Loafers' Rules" (Jefferson High School, Portland) bring regulations to attention admirably by means of clever and witty remarks about them.

The book of the Manual Training High School (Kansas City) and several others have paragraphs on the reasons for the study of the various school subjects. The book of the Seward High School (New York City) introduces, through a short, clever article on "At Grips with Your Studies," the important problem of how to study. A few general suggestions are given, followed by detailed directions for the study of each subject. Several of the other New York City books do the same thing. "How to Do School Work

Successfully" (Washington Irving High School, New York City), "Requirements for Success" (Plainfield, New Jersey), "How to Pass a State Examination" (DeWitt Clinton High School, New York City), "Graduates Who Win" and "Graduates Who Lose" (Seward High School, New York City), and "Personal Efficiency Test" (Washington Irving High School, New York City) are other types of topics discussed for the direct purpose of aiding the pupil in his work. Such topics add to the interest and attractiveness of the book.

Data on the cost of publishing handbooks are not very valuable because the cost is so variable, depending as it does on the size of the book, the number of pages, the number of copies printed, the type used, etc. A few schools publish the book each year. Most of them publish it every two or three years. If a school uses a single edition of the book for more than one year, such material as the names of the faculty members, club officers, and team captains, calendar, schedules, etc., must be changed each year or left out entirely. Probably the best way for the school to meet this problem is for it to purchase the plates of the regular material from the printer, thus saving the expense of resetting this material each year. The material which is to be changed or reset can then be composed at relatively small cost since there is not a great deal of it.

Handbooks are financed, at least in part, in a number of ways. Nearly every school makes a charge for its book. The prices range from ten to twenty-five cents. The rigidity of this charge varies from the school which takes a collection or contribution from those who get copies of the book, or the school which urges its pupils to contribute ten cents each toward financing it, to the many schools which make a straight cash sale at a uniform price. In the instances where contributions are taken, a book is given to each pupil regardless of whether or not he contributes, the collection of contributions being discontinued when the total expense is covered.

Another way of financing the book is for the student council, general organization, or any other pupil organization sponsoring it to raise funds by means of fairs, shows, candy sales, tag days, sale of arm bands and pennants, etc., and then either give the book outright to all pupils or make a small charge for it. In a few instances

the high-school fund is used to pay the expense of the book, any deficit being met by it or any profit being added to it. A variation of this procedure is found where the pupil becomes a member of the general organization or student association, paying a small fee as dues, and the book is given to him, being paid for out of the treasury of this organization.

In some cases the board of education assists in financing the book. The entire obligation may be assumed and the books given to all incoming pupils. In other instances the board of education assumes only a part of the expense, usually one-half, and the other half is assumed by the school or some school organization. In the latter case a small charge is usually made to meet the school's share of the expense.

Sixty of the 110 books name the organization responsible for publication and issuance. In forty-two of these books the student council is given credit. The other eighteen books were issued by the Hi-Y, English club, senior class, parent-teacher association, board of education, alumni association, faculty and pupils, and principal.

The values of the handbook to the new pupil and consequently to the school as a whole are unquestioned. To these values might be added those coming from the tasks of writing, organizing, printing, financing, and distributing the book. Such a book should not be the result of the labor of any one person but should be a school project. The material may be made the subject of many a practical lesson in English composition; the organization, distribution, and financing should be in the hands of properly qualified boards or committees of pupils; and the whole project should be supervised and directed by the leading pupil organization of the school, such as the student council. The successful handling of just such a task would establish the confidence of the pupils, as well as of the members themselves, in the ability and value of the student council.

THE SOCIALIZED RECITATION IN THE HIGH SCHOOL

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There is nothing modern or unusual about the socialized recitation, except possibly the name. The principles of the socialized recitation have always been in use in those classrooms where the aim of the teacher is to teach the pupils by means of the subject-matter rather than to teach the subject-matter as an end in itself.

The atmosphere of many of our high-school classrooms is very oppressive and formal. The teacher often feels that restraint of the pupils is an indication of excellent teaching. On the contrary, such restraint is usually evidence of a marked deficiency of wholesome instruction. We cannot expect boys and girls of the high-school age who are full of life and enthusiasm to develop in a natural manner within the confines of classrooms where all naturalness is suppressed. Subject-matter is valuable for the pupil only in so far as it permits him to secure a strong grip on life's problems and makes of him an efficient moral and social being. The writer would hesitate, however, to condemn in its entirety the present method of the recitation. In many instances a few slight modifications would be sufficient to convert a dull, uninteresting lecture or drill lesson into a spirited and vigorous attack on the subject-matter by the pupils themselves.

To make such modifications is, in general, the aim of the socialized recitation, a recitation in which the pupils take an active part in defining the problem, securing the necessary data, and presenting the data for the consideration and criticism of the class. The project method may be of value in developing and defining the problem; the method of supervised study will serve in procuring the necessary data; and the socialized recitation will provide abundantly for the presentation of the results. When necessary, the teacher may stimulate and direct the discussion along the proper

lines, but he should to a large extent remain in the background. It is the pupil who must be developed, and it is the subject-matter which must serve as the means for the expression of his ideas and the broadening of his experiences.

The socialized recitation appears to be well adapted to the stage of mental development reached by high-school pupils. They have, for the most part, passed through the period of individualism and are thoroughly prepared for participation in group activities. It may be necessary at first to select subjects which lend themselves readily to free and easy exchange of opinions in the classroom. With such selected content the pupils will develop into an active and enthusiastic group. The individual pupil will be led to secure data for the next day's discussion by the fact that ignorance of the subject-matter will be evident to his fellow pupils either through his failure to respond and discuss or through inaccuracies in his statements.

During the past year, while in charge of educational research at the Lane Technical High School, Chicago, the writer carried out an experiment for the purpose of comparing the efficiency of the ordinary question-and-answer type of recitation with the efficiency of a second method which we shall call the socialized-project-study method. The subject selected was mathematics with Breslich's correlated mathematics texts as the basis of the class work. The writer taught all of the four classes included in the experiment, which extended over one semester of twenty weeks. There were two first-year beginning classes (I B) and two second-year beginning classes (II B). One of the classes of each grade was used as a control group. The control classes followed the ordinary routine form of question-and-answer recitation with home work in preparation for the recitation. The control and experiment groups had the same number of class exercises of the same duration and covered the same topics during the semester.

The Otis Self-Administering Tests of Mental Ability (Intermediate) were given to the four classes near the beginning of the semester. The median and average scores are shown in Table I. The two first-year beginning classes represented approximately the same degree of intelligence with similar dispersions of scores.

In the case of the two second-year beginning classes the median scores were the same with a greater dispersion of scores for the control group than for the experimental group.

In the case of the experimental groups the instruction was carried on as follows: As a general rule, the first part of the class period was devoted to determining the value of the next topic to be studied. Often this led to a discussion of the habits of study which ought to be adopted in preparing the lesson. Thus the habit of developing theorems by experimentation or the habit of developing rules inductively was discussed and accepted by the pupils as a suitable procedure. The inductive method, for example, was adopted as useful in showing congruency of two or more triangles under certain conditions.

TABLE I
MEDIAN AND AVERAGE SCORES MADE ON THE OTIS SELF-ADMINISTERING TESTS OF MENTAL ABILITY

	Median Score	Average Score
Year I B:		
Control group.....	48.0	49.6
Experimental group.....	50.0	47.0
Year II B:		
Control group.....	41.0	43.8
Experimental group.....	41.0	44.0

The discussions were conducted as give-and-take exercises. No pupil led or dominated the class work. The instructor urged the weaker pupils to take part and restrained the more aggressive pupils. It was frequently necessary to remind the pupils that their time was limited and that certain definite objectives must be attained by them in the supervised-study period which followed.

After the project had been discussed, a short supervised-study period was provided for solving certain problems bearing on the project. The supervised study might extend over several successive recitation periods, depending on the nature of the project. The class then turned to a discussion and review of the work which the pupils had planned and completed during the preceding class periods. The procedure followed the lines of the socialized recitation and included such activities as the following: (1) A statement of the project was secured from some member of the class. The

project may have been a theorem in geometry, a fundamental process in algebra, or possibly some practical application of a mathematical procedure. (2) Criticisms of a constructive nature were permitted. (3) After the pupil had carried on the discussion for a short time and had answered criticisms as they arose, he selected a successor. The teacher might object to the pupil selected on the ground that all should be given an opportunity to take part. (4) If time permitted, the pupils were called upon to evaluate definitely their classmates' answers and criticisms. Such phrases as "too broad," "too general," "incomplete," "off the question," etc., were defined and used at the teacher's request. Occasionally the English used by the pupils was criticized.

It may be well to mention that both the control groups and the experimental groups were required to keep "job" notebooks in which all work was filed systematically. The notebooks were inspected every two weeks. It must also be noted that the individual class period in the case of the experimental groups was *not* broken up into special divisions for the purpose of developing the project, supervised study, and the socialized recitation. These methods followed one another in the successive recitation periods as they were needed.

What were the advantages, if any, which accrued to the experimental groups, taught by the socialized-project-study method, as compared with the control groups which were taught by the conventional question-and-answer method? There appeared to be three advantages: (1) The pupils in the experimental groups were full of enthusiasm. The moral influence of active co-operation was evident. Cheating and deliberately poor conduct were seldom discovered after the first two or three weeks. In the case of the control groups cheating occurred on numerous occasions and up to the very end of the course. (2) The experimental groups afforded the teacher many interesting situations. There was abundant opportunity to view and analyze the classroom products and indirectly to study the mental processes of the pupils. Besides training the pupils in new experiences and modes of expression, the teacher found it possible to aid individual pupils in those mental processes which presented special difficulties. (3) Finally, the results of subject-matter tests which were given at five-week intervals indi-

cated that the pupils in the experimental groups had grasped the subject-matter better than the pupils in the control groups. The difference, however, was not great quantitatively until the fifteenth week. The results of the final examination (semester examination) were convincing. In the case of the first-year beginning pupils the average score of the control group was 69, with approximately one-fourth of the scores below 60; the average score of the experimental group was 83, with no pupil scoring below 72. In the case of the second-year beginning classes, the average scores of the control and experimental groups were 79 and 84, respectively. The dispersion of the scores was less in the case of the experimental groups than in the case of the control groups. This was due, no doubt, to the fact that the weaker pupils in the

TABLE II
AVERAGE SCORES ON THE SUBJECT-MATTER EXAMINATIONS

	Examinations			
	I	2	3	4
Year I B:				
Control group.....	72.0	68.4	63.6	69.4
Experimental group.....	75.0	72.6	79.5	82.9
Year II B:				
Control group.....	75.7	80.4	75.2	79.1
Experimental group.....	79.5	80.5	83.0	84.0

experimental groups were given considerable attention and urged to take an active part in the discussions.

Table II presents the average scores in the tests. Each test was of thirty-five minutes' duration except the semester examinations, which were ninety minutes in length. The thirty-five minute examinations consisted of twenty questions, whereas the semester examinations involved fifty questions. The first-year beginning classes covered the first eight chapters of Breslich's *First-Year Mathematics* at the rate of two chapters each quarter semester. The second-year beginning classes completed the first eight chapters of Breslich's *Second-Year Mathematics* at the rate of approximately two chapters each quarter semester. A part of chapter ix was also completed, but this was not included in the examination. None

of the problems in any of the examinations was involved or of a catch nature. The following problems are taken from the final semester examination of the first-year beginning pupils and represent the general nature of all of the examinations given:

1. A straight line has length width thickness position. Underline the correct word.
2. Write symbolically: a is not equal to b .
3. Draw a graph to represent the distance passed over by a train in the first ten hours. The train is traveling at the rate of 20 miles an hour.
4. Subtract graphically a 2 cm. line from a 5 cm. line. Make the remainder a heavy line.
5. Give an example of a binomial.
6. $10m + 4m + m + n + 3n = ?$
7. Give an example of an axiom.
8. $2x + 3 = 9$. The answer was found to be 4. Check to see if this root is correct. Is it correct? Show all of the work of checking.
9. What is the first step in a "thought" problem?
10. The perimeter of an equilateral quadrilateral is 48 feet. Find one side. Show all work.

The foregoing discussion has in no way attempted to solve the problem of classroom procedure. There is, however, a technique suggested which, on the basis of objective and impartial experimentation, has given indication of at least partial success in the case of mathematics. It is possible that with some modifications it could be applied to other high-school subjects. Some teachers may object to the socialized-project-study method on the ground that it consumes more time per unit of instruction than the question-and-answer method. This objection will be found to lack validity once the technique has been fully developed. In the matter of discipline, the pupils, with proper guidance, will early realize that freedom from restraint does not necessarily imply disregard of law and propriety.

Experimental teaching at the present time is practically unknown in the public school. Opinion flourishes. We need to be more certain of our ground. Teaching as a science requires impartial and objective data secured under the ordinary conditions of the classroom. Such data, when properly interpreted, should be used as a basis for further experimentation and should finally result in a superior type of classroom instruction.

SOME PRACTICAL ASPECTS OF THE HONOR SYSTEM

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In increasing numbers, the public schools of this country are conducting their classes in accordance with some sort of an honor system. The forms in which it has appeared and the extent to which it has been applied vary, of course, but these commendable ventures must surely interest all who believe in intellectual honesty as an essential in even the most elementary fields of education. To those public schools which are interested in the problem of the honor system many of the privately controlled institutions in the South can offer examples of such systems successfully administered through a long period of years.

In general, the practices of these schools do not differ materially from those of the colleges and universities from which their own systems are usually borrowed. The chief difference is in the ultimate control of the honor system. In the University of Virginia, for example, the honor committee handles all infractions of the honor code independently of the faculty. The faculty neither reviews the decisions nor carries them out. All of this is the prerogative of the students themselves. In the secondary school, where the students are less mature, the principal must, of necessity, pass on the investigations of the student committee. If he is wise, he will attempt to influence the judgment and decisions of the pupils as little as possible. No honor system will function properly if it soon becomes clear that the members of the honor committee are merely doing the "dirty work" of the authorities and that their decisions and recommendations are ignored at will. The principal will sometimes find himself retaining in the school boys whom he might personally like to discharge or permitting punishment of which he may not highly approve. These cases are, however, only occasional, and the honor system is strengthened by wise concessions to student judgment. Of

course, the principal should never agree to what he feels is positively wrong. When necessary, he can usually convince the student committee of his point of view if he will be sufficiently sympathetic and tactful in his presentation of it.

Whatever else the relation of the school to the honor system may be, all of the investigation of a case should be done exclusively by the pupils, who should then reach their decision and lay it before the principal. It may very likely happen that the pupils have overlooked some essential point of testimony, and the principal may have to summon witnesses again, but always in conference with the honor committee. Then, too, this committee should be intrusted with administering whatever punishment may be decided upon, in order to make this system as completely as possible a matter of student government. Except in cases of a peculiarly intricate nature or cases involving the discharge of a student, the senior prefect should report the different investigations to the school.

While giving the honor committee a free hand, the careful principal retains the reins of authority. It has sometimes happened, for example, that an honor committee has been callous and "hard," and it has further happened that the committee has elected to inflict punishment without the knowledge of the principal, especially in the case of little boys. Of course, if the honor committee is properly informed and controlled, such incidents will not occur.

The infractions of the honor system fall into a few well-defined classes. In the first place, there are the numerous cases in which no offense has been intended or committed. In such circumstances the principal is not necessarily consulted, and the chairman of the honor committee merely makes a statement to the school explaining the case and exonerating anyone involved.

Then there are actual violations of the honor code through misunderstanding. The offender, of course, must be publicly reprimanded for his carelessness but cleared of evil intention. Such violations cannot, however, occur with frequency in the case of any one individual if he expects to retain the respect of his comrades or, for that matter, remain in the school.

Next are the cases where the honor system has been violated consciously, such as lying to escape punishment or utilizing some unex-

pected opportunity to gain information on the spur of the moment. In such instances various courses are open. If the boy is a new pupil, and he has freely admitted his guilt, he may be simply rebuked before the school and put on probation. If he has aggravated matters by lying about his guilt or if it is a second offense, the best punishment, unquestionably, is to have the honor committee "paddle" the culprit soundly, especially if he is a small boy. If he happens to be an old pupil or a large new pupil, he should usually be dismissed from the school on the second offense, unless there are special considerations which may justify another chance.

Finally, there are deliberate violations of the honor system, and in these cases the offender should be expelled. The shock of the experience will usually set him right, and he will show improvement at some other institution where he can make a fresh start with no reminder of the past about him. There are few boys of whom this is not true. Their attitude toward lying or stealing or cheating has been warped through bad associations or training, and only some such violent awakening will help them. There are, of course, the few constitutionally depraved individuals whose departure is a welcome relief but who unquestionably will be a problem elsewhere in a few weeks. Until there are more specialized schools to handle this type, our educational system will remain faulty at this point.

In no event should the ordinary punishments of school demerits and the like be imposed for violations of the honor system. They should be reserved for disciplinary ends only. Nor is it very likely that any system of "coventry" will work among normal boys, certain schools of fiction to the contrary. Whatever the punishment, it should be only temporary. Once the punishment is administered the matter should be forgotten. In fact, the other boys are generally sympathetic and helpful, sometimes so much so that they lessen the real value of the incident.

To be effective, an honor system must make just as great demands on the instructors as on the boys. No teacher can watch the boys to see if they are cheating; he must take their word for everything, confident that if there has been any lying or cheating, it will be reported to the honor committee. He may think that someone has cheated or has not told the truth; especially may this be so where

there are no means of checking up. He must, however, keep his suspicions to himself, hoping that in time the individual may be found out or may reform.

There is an old story which illustrates the point. Many years ago a certain man started a small school. It was to be on the honor system, so he said; he was going to trust the boys. But, of course, neither the honor system nor the school lasted long when this person was discovered sneaking about with rubber-soled shoes on watching the boys whom he trusted.

In return, the instructor feels that the work is being done honestly, and he has to be less of a policeman and much more of a teacher. It must never be forgotten, however, that while the teachers' burdens are lessened, this is not the reason for the honor system but rather the training in character development afforded by it.

Of course, there are difficulties in the practical workings of an honor system. By far the most serious obstacle to its adoption and later to its actual development is the feeling against "telling on one another." Popular stories of school life have made a glorified figure of the innocent boy who takes his punishment rather than tell on his guilty companions, although usually the misdeeds are neither lying nor cheating. In addition, there has grown up in schools a very definite code against this "telling on the other fellow." To distinguish between plain tattling and the justified reporting of violations of the honor system is fundamentally necessary for the success of the system.

It must be made clear to Brown that it is not his business to tell the teacher that Smith has just pinched him in class, but it must be made equally clear that he is to report to the honor committee if Smith should escape punishment by telling the teacher that he did not pinch Brown. It is not Thompson's business to tell that Johnson's collateral reading is not done, but it is decidedly his duty to report to the student committee if Johnson tells the teacher that he has completed his reading and Thompson knows that the statement is false.

The boy must know that if he does not report violations of the honor system he is encouraging the growth of what he himself does not want to have around the school. He is making lying and cheating

easier and is obviously helping to lower the morals of the school. He is in exactly the same position as the man who, out of sympathy, allows his neighbors to commit crime or to go about with contagious diseases. Soon the town will be suffering from a crime wave or an epidemic. Soon, too, the school will have no intellectual honesty of any kind about it. When a boy reports a case, therefore, he should know that he is protecting his own morals and those of the school; he is making it more difficult for others to be dishonest in the future and easier to be honest. In fact, he is obtaining that valuable experience of doing a disagreeable and hard, but nevertheless right, thing.

Too often people imagine that the boys are habitually reporting one another. As a matter of fact, this is not at all true. The honor committee in the Virginia Episcopal School is probably not called on to investigate as many as one case a week in an exceptional year and fewer, of course, in a normal session. In a school of 150 boys and a year of thirty-five weeks a boy might reasonably be expected to make a report once in four years. Some boys never have the experience. In the year 1923-24, a fairly normal year, we had to send home four boys, one for failure to report a violation of the honor system, and seven others received corporal punishment. In addition, there were a few investigations in which no guilt was found or no action taken, but the total number of cases averages well under one a week.

After all, the question of reporting comes down to the false point of view which makes school and college something totally different from real life, which establishes a moral code incapable of receiving legal support elsewhere, and which deliberately fosters dishonesty in the realm of the intellect, the one place where it is commonly considered objectionable.

The other great difficulty is in the name itself; there may easily be too much system and not enough spirit. There may be too great a desire to mark out the lines beyond which one can be dishonest safely. It is the sort of thing which prompts a boy to avoid demerits by saying, "I didn't *pour* water in Wilson's bed," although later he explains that he *put* a receptacle containing water in the bed. Since the demerits are given for *pouring*, he feels justified in quibbling. Or, again, a boy may have been in a small store with a companion

and say, "I did not *see* Weaver smoking in violation of his pledge, for I had my back turned to him." Of course, he *knows* that Weaver smoked, but he feels that he can justify his denial on the ground that he did not *see*. Such a character is much more reprehensible than the one who is dishonest through sudden impulse, and he should be dealt with severely. If he is allowed to propagate his schemes, he can turn any honor system into a mere worthless code of illegal subtleties.

Then there is the clever boy who is always just within the law but is never caught, the boy whose whole life is essentially dishonest but never, or rarely, technically dishonest. It is all the harder to tolerate him when one thinks of the not infrequent cases in which some really honorable boy makes one definite slip and, of course, must be punished.

The support of an honor system can be obtained on various grounds. Obviously, it is good policy, and it pays. But a system based on this theory only would produce clever, self-seeking students who very likely would be dishonest when it seemed that being so might, at least temporarily, be profitable. Of course, fear of the consequences of possible infringements of the system influences many. This also is a poor foundation. It is an element that is present in many a boy's reactions to the honor system, but it should not be the only one or the chief one. Then, too, as in athletics, the name and reputation of the school are strengthened as its standards are kept high and fine. Another worthy appeal can be made to the boy on the ground that dishonesty is beneath his character, beneath his claim to being a gentleman. Again, it can be shown that the best representatives of manhood in the world's history have been honorable men.

Too often the opposition to the installation of an honor system comes from those who have so lost their faith in the manhood of the nation that they think the boy does not live who will not cheat. It is the opposition born of the annoying complacency resulting from an unenlightening experience with the weaknesses of human nature, the complacency which prompts its possessor to shout in cock-sure tones, "Give them a chance to cheat, and see how fast they will do it." Of course, if that is the attitude, they will.

MAKING PROFITABLE USE OF THE LENGTHENED PERIOD

W. W. BROWN

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In an earlier article¹ an investigation of supervised study in seven Wisconsin high schools was described. It became very evident to those conducting the investigation that the success of any plan of supervised study depends in a large measure on the plan of supervised study used and the efficiency of the supervisor in securing, on the part of the teachers, a sympathetic understanding of the educational philosophy and technique involved. It is the purpose of this article to describe how the general plan of supervised study used in the investigation has been worked out in the Janesville Junior and Senior High Schools.

The problem seems to be how to make profitable use of the lengthened period. This problem has not been made easier by the common tendency on the part of teachers to conduct sixty-minute recitations in much the same way that they conducted their classes when the periods were forty-five minutes in length. Pedagogical traditions are strong; many teachers of experience have been attempting to fit the traditional routine of the recitation period to the longer class period, with unsatisfactory results from the standpoint of both pupils and teachers. Since comparatively few universities are attempting to train teachers who can teach pupils how to study, little skill of this sort can be expected from the inexperienced teacher just out of college. Added to these difficulties is that bane of school efficiency, short teacher-tenure. This demands that we must always start at the beginning in developing our methods with the new teachers. As this is a yearly circumstance in most schools, it constitutes a real problem of supervision.

¹ W. W. Brown and J. E. Worthington, "Supervised Study in Wisconsin High Schools," *School Review*, XXXII (October, 1924), 603-12.

To meet these various needs, a supervisor must be ready to suggest a practicable plan, the technique of which may be grasped by the teachers in a few months. The fact of the matter seems to be that if the supervisory officer does not want to bestir himself, he should avoid the lengthened period and the opportunities for good teaching that it may possess. Fortunately, one need not be concerned about the good teachers, no matter what modern terminology might be applied to their methods. But they are not usually in great numbers in a school as compared with the inexperienced and partly experienced teachers and the teachers with long experience of the traditional type, all of whom will normally respond to a sincere effort on the part of the supervisor to assist them in improving their teaching.

All departments of instruction in the high school do not present the same problems of supervision when an attempt is being made to establish a technique for the guidance of pupils in their study. There are certain subjects about which a principal need not be at first concerned, because the problem type of work inheres largely in these subjects. For instance, the laboratory periods lend themselves naturally to the preliminary review of certain facts, the presentation of the problem or experiment, and the careful guidance of the work of the pupils by the instructor. Likewise, the teachers of manual arts and home economics and of the commercial subjects demanding the acquisition of skill, such as stenography, need but few suggestions as to the technique for the supervision of study. The most perplexing problems lie within those fields of subject-matter which have been traditionally handled by the formal recitation type of procedure. Of these, because of the essentially different problems involved, the teaching of composition, literature, and oral work gives the greatest difficulty. Likewise, the social studies, because of the varied content, present many difficulties. The fields of mathematics and language, though requiring still different techniques of study supervision, are perhaps less troublesome because of the well-organized subject-matter.

In a situation such as described a plan was worked out which, to a degree, seemed to meet some of the difficulties mentioned. The plan had to be simple and capable of clear statement. Furthermore,

it had to be flexible, for what might be a good method for one teacher might not work out well for another. It is assumed that the technique of teaching in the longer period must take some form of teaching the pupils how to do their work. On the other hand, the emphasis in the ordinary recitation class has been largely of the testing type. It is probable that the short period is well fitted for this kind of practice. With our modern testing instruments, it does not take long to find out how much the pupils know. The development of a problem, however, takes longer than the learning of a lesson. In developing a problem, the pupil must go through the thought processes, in many cases leading up to the conclusions which as a lesson learner he would need only to memorize. The longer period allows ample time for this problem-solving or developmental process and has as its corollary instruction in methods of study. It is evident that the longer period gives the added responsibility to the teacher of seeing that the pupil not only learns his lesson but also "gets" it, to use a common classroom term, by which we mean an understanding and association of facts sufficient for desirable retention. It is taken for granted, therefore, that the adoption of the sixty-minute period means the acceptance of some plan of guidance by the teacher of the daily work of the pupils.

Whether this method of pupil guidance is designated by "supervised study," "directed study," or some other term matters little. It is true, however, that the term "supervised study" has its disadvantages; it may stand for anything from wholly individual guidance to the so-called study lesson in which the entire class considers a common problem. Restrictions in meaning that have been placed upon the term, resulting from the practices in some schools, are evident from the alacrity with which some school officials lay claim to having supervised study when in reality it is but a formal administrative device. In one school, when the clock marked the half-hour and the buzzer sounded, the teacher stopped abruptly, announcing, "We shall have supervised study now; take out your books." This, of course, probably meant nothing more than the establishment of a study hall in the room when the recitation closed. Although this tendency to assume a difference between the supervised-study part of the period and the recitation possesses

some value, it does not seem in harmony with the fundamental ideas that lie back of teaching pupils how to work. If the professional guidance of the teacher is good, why should not the whole procedure of the hour be directed or supervised work? The many instances in which supervised study has become mere class routine would lead us to say that the use of any term which will hamper our conception of the opportunities existing in the lengthened period is to be regretted. If we must use the term "supervised study" or "directed study" for the want of a more expressive term, we should insist upon plenty of leeway in definition. Certainly, the first question to be asked should be, To what kind of supervised study do you refer?

The kind of organization and guidance which we would present to solve the problems arising from the adoption of the lengthened period should have nothing mechanical about it. The sixty-minute period is essentially a free, working hour; the class period is a complete unit in which the teacher may direct the mental operations of the pupils. Thus, supervised study begins when the class begins and ends at the close of the period. The kind of supervised study we have in mind does not admit of particular emphasis on "the supervised-study part of the period." That part of the period does exist, but there seems to be no reason for setting it apart from the rest of the period in which even more important guidance—for instance, in making the assignment—may be rightly called "supervised." In fact, the type of procedure suggested would be more nearly in harmony with that theory of supervised study which conceives it to be but little more than an elaborated, amplified, or thorough assignment. Hence, every part of the class period is considered important. Throughout the hour, by a variety of means, the teacher secures the advantages which come from the suggestions which the pupils make to one another and from the contacts which are set up between herself and the members of the class. She must skilfully manipulate the mental operations of the pupils from the time they enter the room until they leave.

It is obvious that this complete working hour will have three major phases: (1) testing or recitation, (2) the assignment, and (3) the working out of the assignment or, with a caution against isolating

this phase, study. The teacher should direct the attention of the pupils to the subject-matter of the course as that subject-matter is used (1) in securing a new view or a re-view of the problems of the previous assignment, (2) in securing an understanding of the problems in the new assignment, (3) and, finally, in making progress within the class hour toward the solution of the characteristic problems of the new assignment.

It may be well to suggest briefly what is meant by "problem." Any definition which refers to an attempt to disturb the mental inertia of the pupils would be satisfactory. It might imply "fork-of-the-roads thinking," "the challenge," or, in short, something to think about.

Further, it will be noticed that in emphasizing "the understanding of the problems of the new assignment" as a phase of the class hour "the lesson for tomorrow," that suspended bit of education supposed to be ready for tomorrow, is abandoned. The work at hand becomes paramount. It is the assignment given today that demands immediate attention, at least in so far as its characteristic difficulties are concerned. If by group discussion or individual conference with the teacher the class comes to understand how to attack the type difficulties of the assignment, the work of solving similar problems involved in the assignment may safely be left to a study-hall period. We would drop the terminology "the lesson for tomorrow is" and substitute "our problem (assignment) for today is."

We would suggest, therefore, that there be no separate part of the period just for supervision. The entire period should be used in directing the progress of the pupils, whether they are reciting, being introduced to the problems of the new assignment, or working toward the solution of the problems involved in the assignment.

As was stated, one of the desirable aspects of any plan which might be suggested is ease of statement and comprehension. It seems almost necessary for the supervisor to give not only the theoretical basis of the plan but also some definite information as to the amount of time that may be effectively spent on the three phases of work in the lengthened period.

Since no one class period can be said to be an average period, it may seem unwise to give definite directions. Yet it has been

found that practical suggestions serve as an immediate guide to teachers inexperienced with the long period and supply points of departure for teachers who feel confident enough to develop a technique of their own. At the same time the plan has been made flexible. A class period of sixty minutes should be divided approximately as follows: Twenty minutes for the testing and review of the previous day's work through recitation, discussion, examination, etc.; fifteen minutes for the assignment of the new problem; twenty-five minutes for the working out of the characteristic difficulties of the assignment. There should be nothing hard or fast about the time distribution. At some point in the course it might be desirable to spend an entire period or even a number of periods in working on a single problem. The suggested distribution is simply a guide. If, however, the teacher seldom approximates such a distribution of time, it would probably be indicative of poor planning, and the class meeting would be likely to become a sixty-minute recitation.

About twenty minutes is given to the first part of the period. During this time our object is to ascertain what facts the pupils have retained concerning the problems of the previous assignment. The testing or quiz type of work, either oral or written, is the method employed. We not only want to know what facts the pupils have grasped but also wish to stimulate them to constant and careful preparation of their work. A common device which teachers using this plan have found effective is the five-minute fact quiz. Sometimes the teacher scans the papers, but usually the pupils mark one another's papers, each paper being marked in some cases by several pupils. At no time do the pupils know when they are to have a written quiz. Thus a stimulus is added to their daily work.

A good illustration of this method of beginning the period was exemplified in a class in modern history. The teacher requested the pupils to answer a list of five short fact questions written on the board. The pupils were allowed to write about five minutes and were then asked to exchange papers. The teacher called upon several pupils to give what they considered the correct answers. Occasionally, brief discussion on the part of the pupils and the teacher followed the giving of an answer. The pupils then read the marks of the papers they had examined, and the teacher recorded

these marks in her class book. The pupils were aware that these marks were of particular importance in determining their daily preparation. The questions, which concerned the inventions that brought about the Industrial Revolution, were designed as a rapid review of the subject-matter of the previous day's lesson. No question of opinion was concerned. The purpose thus far was obviously to test, in the good old-fashioned way, what the pupils knew. Most educators will probably agree that there is a place for the right amount of such procedure. Yet it was plain that the instructor had made more than mere inventory; she had provided a short review of the significance of certain inventions which furnished a desirable introduction to the coming assignment. This part of the period occupied eighteen minutes.

Without apparent break in the subject under consideration, the teacher then led members of the class to contribute, from the lesson of the previous day, facts concerning the inventions which would show what changes were likely to take place in the social and industrial life of the people of that period of history. She asked, after some discussion in which the pupils were quick to prophesy, "Do you see what is going to happen?" This seemed to arouse the interest of the class in the possibilities of the new problem. The teacher informed the pupils that this was one of the problems of the advance lesson under the topic in their books, "The Results of the Industrial Revolution." She indicated that many other connected problems might arise. Several members of the class suggested the rise of factories and labor unions, the lessening of manual labor and woman labor, and town life and government. For two or three minutes the class discussed what to look for in the new assignment. Most of the members of the class made lists of the points suggested. The teacher said, "Find out all you can about the problems we have mentioned, and if your text does not give you all of the information you want, you may use any of the books in the case." At this point about forty-five minutes had elapsed. Although the teacher had exceeded by five minutes the precise amount of time suggested for the assignment, she obviously had done so much in the way of guiding the study of the pupils that the different distribution was wholly justified. This instance well

illustrates the fact that in no sense is the suggested time distribution of supervised-study procedure to be formal or inflexible.

The pupils then set to work on the problem assigned. Each had a text and began to read silently. Occasionally the teacher went to the desk of some pupil, either in response to a request or on her own initiative, and held an individual conference. In all, she spoke with eleven of the twenty-nine pupils present. Whether she might better have given individual attention to more pupils is probably open to question. The pupils evidently knew what they were to do and that they were expected to keep closely at work. Assuming that the teacher knew her class, she undoubtedly did the wise thing in not interrupting certain pupils unnecessarily. At the end of the period, all of the pupils had not finished reading the text. Six pupils had made use of the reference books in the classroom library. In this case the teacher did not state what work was to be done outside of class; nevertheless, four pupils, when questioned after class, replied that they were to finish what the text had to say about the problem and then look up further material in the library.

To the second part of the period, the assignment, has been allotted about fifteen minutes. In method, this phase stands in sharp contrast with the testing and reciting which precede. Yet, if the teacher is skilful, new problems may arise out of the discussion and recitation of the first part of the period which lead naturally to a desire on the part of the pupils to raise new questions demanding solution. This was well illustrated in the class described. The implication is that the pupils should see reasons for the new assignment. In many cases effective guidance results in eagerness to know what the teacher has intended as the subject of the next assignment. This takes time, but the period has been lengthened to give time for good teaching. To the teacher accustomed to making an assignment by giving inclusive page numbers, fifteen minutes for an assignment becomes a problem. The assignment conceived of in the manner described affords an opportunity to demonstrate to the pupils the worth-while nature of the subject. Motivation should play a large part. At this point in the class period the desired outcomes which the teacher may have in mind

must function, particularly if the aims of the unit of instruction being studied are to be achieved.

The assignment should gradually merge into the final phase of the work of the lengthened period. As an illustration of this point, the procedure of a ninth-grade algebra class is given in detail.

At the beginning of the period the teacher had the pupils solve a problem which she had written on the board and labeled, "Test of about five minutes." This problem was typical of the kind the class had been discussing the past few days and on which there had been definite oral practice the day before. The problem was as follows: "An automobile party made a trip of 96 miles in 6 hours, running at the rate of 20 miles an hour in the country and 8 miles an hour in the towns. What was the time in the country? What was the distance traveled in the country?" At the end of about five minutes the majority of the pupils had finished working on the problem; the papers were collected by the monitors and handed to the teacher. Then the class was divided into two parts, and a "spell down," so to speak, was conducted on the squares of the numbers from 1 to 20 and on the cubes of the numbers from 1 to 6 which the pupils had been asked to learn the day before. This took about ten minutes and led to finding the square roots of such algebraic expressions as $256a^2b^4$ and $144x^6$.

The teacher then had the class turn to a list of similar problems in the textbook. The question was raised: "What is meant by the 'square root' of a number?" After several opinions, such as "one of the two numbers that are alike," the teacher introduced the word "factor" and asked if anyone had heard the word used in any way different from the way it is used in mathematics. A number of illustrations were given: "factors that determine a case," "factory," etc. Each meaning was analyzed, and thus the real meaning of the word "factor" as used in mathematics was made clear. The teacher then suggested this definition for the square root of a number or expression: "One of the two equal factors." When this definition was thoroughly understood, the class worked orally the set of problems involving square roots.

A few simple problems in multiplication solved orally led to the problems in factoring of the type involved in "removing a

common monomial factor." The teacher illustrated with such problems as this: "The factors of 18 are 2 and 9 or 6 and 3. What are the factors of 256?" Someone immediately volunteered 16 and 16, knowing that answer from having memorized the squares of the numbers from 1 to 20. By this time the period was about half over. The class was then led to the factoring of numbers the factors of which were not automatically known, such as 386. Someone soon volunteered 193×2 , and the teacher asked the pupil to explain his method of getting these factors. Problems of the type " $3a+3x$ " were examined to find the factors. After several problems of this kind had been solved by the pupils working together, the teacher gave some problems to be done individually and handed in the following day. The pupils were told: "You should be able to work five of these problems in the time left in this period. Try to work at least five more by tomorrow."

The class set to work on these problems while the teacher gave individual assistance here and there wherever she thought it was needed or answered questions which arose.

It is difficult to say at what point in the class described the assignment ceased and the work period began. There was a tendency to overemphasize the assignment. To this we would not take exception, since a well-made assignment would seem to be one of the minimum conditions for successful guidance of study.

After the pupils understand what they are to do and are motivated, if possible, by the knowledge of why they should do it, the remainder of the period, about twenty-five minutes, is devoted to working toward the solution of the problems of the assignment. The assignment may not be completed in the class hour, except in the early years of the junior high school. The plan suggested assumes one or two study-hall periods a day and in the senior high school two hours of home study per week. It is expected, however, that during the class period the pupils will attack the characteristic problems of the assignment so that they will be able to solve similar difficulties by themselves. The teacher must be cautioned at this point to give only that quantity of work which can be reasonably completed within the time that the pupils have for each subject each day. The significant point is that the pupil does the hardest

part of his work in class—getting a start toward the solution of an assignment. He meets with the characteristic difficulties there and completes his work out of class. The study work of the class is concerned with conferences between the teacher and individual pupils and conferences between the teacher and committees of the class, if the class is so organized on a certain problem, or the procedure may be of the study-lesson type in which the whole class concentrates on the solution of a common difficulty. Work outside the class is made up largely of outlining, searching for further references, completing the work begun in class, rewriting of material, memorizing vocabularies and forms, etc. These are time-consuming processes for which the guided environment of the class hour is, in most cases, both unsuited and too valuable.

As will be recalled, the history teacher whose procedure was described left most of the searching for further references on the results of the Industrial Revolution to the time outside of class that the pupils were expected to put on the lesson. In a tenth-grade English class observed the work assigned for out-of-class preparation was of a different sort. The class was studying *As You Like It*. At the opening of the period the scene studied the day before was reviewed. A number of fact questions were asked which brought out the significance of the scene as well as the types of characters. The questions were phrased so that the pupils were called upon to give more than their own opinions. They had to remember the story of the scene and the individuality of the characters. This part of the period took about fourteen minutes. The teacher then gave the pupils a number of thought-provoking questions designed to aid in the study of the next scene. She also selected several difficult passages for discussion. One boy was asked to read a passage which the class was told to mark for memorizing outside of class. This part of the period took about eighteen minutes. The pupils then began reading silently. It was observed that the teacher had individual conferences with thirteen of the twenty-three pupils present. Six pupils consulted an unabridged dictionary which was at the side of the room. What a teacher does while the pupils are studying is of much importance. Since it is difficult for a supervisor to know just what is said in the individual conferences,

the teacher was asked to write a statement of the nature of these conferences.

If an individual had a question, he raised his hand and was given help. Others who did not seem to encounter difficulties were asked to explain certain passages in order to ascertain whether they understood the assigned passages. Some of the help was informational. Wherever possible, however, association was made with other subjects, such as Latin and French, as in the significance of the names of the characters "Le Beau" and "Aliena." One Latin student who did not know the meaning of the word "malice" was asked what the Latin word "*malus*" signifies and was able to answer her own question. "Co-mates" was not understood by another pupil; so the meaning of the word "co-operate" was discussed and the prefix "co-" explained. The aim was to help the student by suggesting and associating his ideas rather than by merely giving information.

In the last sentence this teacher stated a truth which may be at the same time either one of the greatest values or one of the greatest weaknesses of supervised study. Pupils will certainly let the teacher do their thinking if she permits. However, by no means can we see anything but value in the type of help which guides the thoughts of a pupil into a multitude of associations among which he must make the final connections for the proper solution of his difficulty.

When the pupils left the classroom, their "unfinished business" amounted to a passage of ten lines to be memorized and, depending on their progress in the classroom, one or two scenes of the act yet to be read. The teacher said later that she expected this to occupy from twenty to thirty minutes.

The contrast is marked between this type of procedure and the traditional recitation method, in which too often the pupils are merely given page numbers or questions to write out on the assumption that by some grace they will know how to attack the assignment and return to class the next day "prepared." This, of course, is not true of the best teachers; they will probably get results under any system. Yet it is the *raison d'être* of supervised study. The recitation method has tacitly expected much trial and error on the part of the pupil and some kind of domestic supervision of study, which has been neither outstandingly popular with the pupil nor helpful to him. In the case of the English class and the other classes described, before the pupils left the classroom they had experienced enough of trial and success with characteristic difficul-

ties to insure that the time spent in preparation outside of class would be effectively used, even though they were entirely dependent on their own resources.

For such a laboratory type of procedure the classroom must be especially equipped. The establishment of classroom reference libraries, small but usable, may deplete the school library, but the books will be where they are the most frequently needed. The ideal room will lack no necessary physical equipment, such as maps, globes, charts, apparatus, and a bulletin board. If the teacher is resourceful, any room will soon have its clipping file, bulletin board, magazines, books, and home-made apparatus gathered from various sources which will be creative of a working environment.

The inauguration of a scheme of time distribution for the supervision of study will not guarantee a profitable use of the longer period. Teachers who desire to teach boys and girls how to make the best of their abilities have found the proposed plan a distinct aid. Those teachers with a different educational outlook have found it neither a particular aid nor a hindrance. In the case of such teachers the problem of the supervisor becomes the far more difficult one of inspiration and of conversion to the tenets of modern educational thought.

Little has been said of the actual technique involved in teaching pupils how to study, a large problem in itself. The essence of the directed type of work would seem to be teaching pupils how to use their minds in an effective, economical, and logical manner. Its purpose would be to establish certain thinking habits by the use of the factual material of the course. Not until the technique of supervising study has been worked out for every subject in the curriculum can any definite instructions on this point be given. There is an opportunity here for much constructive work. Moreover, it might be said with truth that supervised study is as much the spirit of work as the method of teaching. The general method that we are suggesting may help to create a class environment suitable for an expression of this spirit of work. Further than this, even with the administrative plan suggested and with sympathetic supervision, in the final analysis each teacher will of necessity have to develop her own technique.

Educational Writings

REVIEWS AND BOOK NOTES

The relation of the individual to the social group.—Social studies have of late received a great deal of attention. During the last three years especially, several books on social psychology have appeared, showing that the students of human nature are not satisfied to deal with personal traits and abilities as though their possessors lived in isolation. It is a matter of special importance to students of education that the broader view with regard to the nature of mental life should be recognized in dealing with all of the problems that come up in formulating the curriculum and methods of instruction.

A very comprehensive presentation¹ of the principles of social psychology has been made by Professor Bogardus. The special virtue of this book is the elaborate treatment in Part II of what the author calls "interstimulation." Many writers on social psychology, while recognizing the existence of groups, are not at all clear in showing how the group differs from a mere collection of individuals. Professor Bogardus has described, under such chapter headings as "Communication," "Convention Diffusion," and "Imitation," the way in which individuals interact on one another and bring about fundamental changes in the mental life of each person involved.

The book opens with a section which describes the various aspects of individual mental equipment, such as cognitive nature, habitual nature, mirthful nature, and so on. Following this introductory part and Part II, on "Interstimulation," to which reference has been made, are Parts III and IV, in which the various social groups, such as crowds and armies, are described and their achievements and membership discussed. Typical chapter titles are "Group Opinion," "Group Control," "Mental Leadership," and "Prestige Leadership."

School people will find the book very illuminating. It is much to be desired that there be a thorough reorganization of the courses in educational psychology so that students will come to see that educational practices are based not on a study of instincts and personal abilities but on social institutions and the demand that the individual conform to the requirements of group life.

CHARLES H. JUDD

¹ Emory S. Bogardus, *Fundamentals of Social Psychology*. New York: Century Co., 1924. Pp. xiv+480. \$3.75.

A manual of exercises for courses in high-school administration.—The physical and biological sciences have set the pace for all sciences in the use of laboratories and laboratory manuals as devices for instruction. In recent years there has been a growing tendency on the part of those in charge of other subjects in the curriculum to adopt the laboratory plan. This tendency is reflected in the insertion of problems and exercises at the close of chapters and other units of study in college and high-school textbooks. Examples of this tendency are also found in the publication of exercise books and practice manuals. The latest manual¹ of the kind in the field of education is on the subject of high-school administration and follows the practice of the schools of law and medicine in the use of the so-called "case method."

The problems or cases are gathered from actual administrative experience, and the purpose in presenting them is stated by the authors in the Introduction as follows:

This collection of problems is designed to furnish useful supplementary material for courses in the organization and administration of a school system. Each problem defines a situation that has actually arisen in some school organization. It is the belief of the authors that the solution of these problems will give valuable practice in applying sound principles of educational organization and administration.

Two methods of using the problems are proposed by the authors: (1) after a given topic has been covered in the course, the instructor may assign a number of problems appropriate to that topic for solution; (2) problems may be assigned in advance of the study of the topic, the purpose being to supply an incentive for the study of the topic which is about to be presented by the textbook or the instructor.

The problems given embody all sorts of difficulties which confront the administrator in the regular discharge of his duties. The following titles indicate their character: "Who Is Responsible for Educational Policies?" "Superintendent A. Defines the Duties of the High School Principal," "Superintendent S. Sets up a Code of Conduct for His Teachers," "The Board Embarrasses the High School Principal," "How to Judge the Merit of Teachers," "Dorothy Insists upon Graduating from High School," "An Experiment in Classifying Pupils," "How to Determine the Minimal Annual Salary," "Superintendent I. Is Asked to Submit a Plan for a New Building," "The Work-Study-Play Plan," and "The Greatest Service a Superintendent Can Render His City." The problems are assembled under the following headings: "The Powers and Duties of the Board of Education," "The Powers and Duties of the Superintendent," "Problems Pertaining to the Teacher," "Problems Pertaining to the Pupil," "Problems of Finance, Salaries, and Pensions," "School Building Problems," "Library and Text-book Problems," "Problems of the Course of Study and Program Making," and "School-Home-Community Problems."

¹ J. B. Edmondson and Erwin E. Lewis, *Problems in the Administration of a School System*. Bloomington, Illinois: Public School Publishing Co., 1924. 84 problems.

A well-selected bibliography is presented to provide the student with source material for the solution of the problems.

The mechanical form of the book is particularly adapted to the purpose intended. It is a bound volume of large sheets ($8\frac{1}{2} \times 11$ inches) printed on one side, one problem to the page, each problem being given at the top of the page, leaving the lower part of the page and the reverse side for the student's written solution of the problem. The sheets are perforated so that when filled out they may be assembled in the student's standard notebook cover.

There can be no doubt of the desirability of providing abundant and concrete practice material in connection with courses in education. Much of the work done in schools of education and in normal schools fails to function for lack of such material. Sound principles of practice are often discredited by students of education when they go out into the field because they are not able to make the intellectual connection between the principles and the actual situations as they meet them in the school. A further evidence of the need of such material is shown by the keenness with which students attack the problems. The training of teachers and administrators will be made more effective by the extension of the use of practice manuals.

In the particular manual under consideration the problems are comprehensive in that they represent all phases of the administrator's task and practical in that they present many of the situations which the administrator will meet in actual service.

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A summary of the uses of psychological tests as applied to college students.—During recent years the college has acquired some vexing problems because of the unprecedented number of young people who are seeking admission. Formerly it was the student who chose his institution from a large number of possibilities, but now the process is reversed, and the college selects its quota from a long list of applicants for admission. Selection is necessary, because an educational institution finds it impossible within a limited time to expand its material facilities and personnel sufficiently to care for all those who wish to enter. At this point a very real problem presents itself. It is important that the college admit not merely those who have the capacity to acquire a higher education with ease but also the less gifted who will profit by such training on account of unusual industry and other desirable personal traits. It is fitting that information be available in a reasonably concise form concerning the selective processes used by the various colleges of the country. Such a summary¹ has been prepared by a man who was associated with Colvin at Brown University, where the psychological testing movement as applied to college students received much of its present impetus.

¹ Andrew Hamilton MacPhail, *The Intelligence of College Students*. Baltimore: Warwick & York, Inc., 1924. Pp. viii+176. \$1.80.

Part I is entitled, "A Survey of Current Practice in College Admission with Special Reference to the Use of Intelligence Examinations." The author indicates that no satisfactory single criterion for selection has been found and concludes that a composite method will give the most satisfactory results. However, according to individual merit, he ranks the selective methods in general use as follows: "(1) intelligence examinations, (2) high-school records (certification), (3) comprehensive examinations, and (4) content examinations (old type)" (p. 60). The central tendency of correlations between psychological test scores and college grades in the various institutions is found to be from .40 to .45, which the author interprets as "markedly significant" (p. 28). It is pointed out that these correlations may have been lowered by capable students who do not work up to their capacity because of laziness or excessive extra-curricular activities and by students of comparatively low intelligence who do better work, on account of good study habits and persistent effort, than might be expected. The inaccuracy of psychological tests as measures of pure intelligence, the fallibility of teachers' marks as measures of academic achievement, and the comparative homogeneity of the college group are mentioned as other factors in lowering the correlation between intelligence-test scores and success in college. Since many incapable students are admitted to college in spite of selective devices, educational guidance, so far as it concerns higher education, should begin at the high-school level.

Part II is entitled, "A Critical Study of Criteria of Admission and Retention at Brown University." About three-fourths of the students who make high scores in the psychological tests do satisfactory work in college, while only one-third of the students making low scores do work of an acceptable character. Students who leave college for any reason are, as a group, intellectually inferior to the student body as a whole, and those dismissed show marked inferiority. Almost without exception, those who secure more than one academic honor have high psychological-test scores, while students with low scores have practically no chance of obtaining academic honors. The Freshmen pledged to fraternities are decidedly inferior in intelligence to the non-pledged. The high-school principal's estimate of a student is of little value in predicting accomplishment at college and does not correlate with the psychological-test scores. The psychological-test scores indicate what a student will do in college a great deal more accurately than rank in high school at graduation or general estimates made by teachers.

The appendixes contain reproductions of personnel cards and high-school principals' questionnaires. An extensive and well-selected bibliography is a valuable part of the study. The author adopts a sane attitude regarding the use of psychological tests in colleges and fully realizes that various non-intellectual factors should be considered along with the test scores in order to obtain a composite rating of the student. It is suggested that properly constructed comprehensive examinations might be developed for use in the selec-

tive process. The volume furnishes tangible evidence of the diagnostic and prognostic values of psychological tests at the college level.

CARTER V. GOOD

Minimal essentials of measurement.—The most recent addition to the textbook literature in the field of tests appears under the modest title, *Beginnings in Educational Measurement*.¹ The author has touched briefly on such matters as elementary statistics, intelligence tests, character ratings, and achievement tests. The volume differs from others of its kind in that little reference is made to actual tests, the choice of such material being left to the instructor who uses the book. The subject-matter is clearly presented and may give the uninitiated reader an easy introduction to the field of educational measurements, as the author has intended. If the book is used as a text, it is recommended that the class periods be left "free for the presentation of illustrative material, demonstration of the giving of tests and the using of scales, and discussion of problems which are suggested by the teachers out of their classroom experiences" (p. 5). It may be possible to conduct a course profitably in this way, but many teachers of the subject will doubt the value of so much time devoted to the mechanical giving of tests and will be skeptical regarding the possibility of arousing valuable discussion on the part of students so unfamiliar with tests as to require an introductory course of this kind.

In attempting to cover so large a field in so short a space the author has naturally been led into some rather debatable statements. To speak of the accomplishment quotient as "perhaps the most exact measure we have of pupil efficiency" (p. 23), with little further comment, is surely misleading and merely paraphrases the inexact thinking of enthusiasts for their own devices. To state that the "closeness with which actual distributions may approach the theoretic [normal curve] is still an unsettled question" (p. 33) flatly contradicts the author's belief that the mathematics of the subject "are of the simplest kind and can be handled by anyone who has a reasonable command of the four fundamental operations" (p. 25). His own unfamiliarity with the subject has led him into a gross misstatement. The discussion of skewness on page 34 is again misleading, as is the treatment of reliability in the same chapter. Turning to page 108, we find a sketch of what a teacher may do in a survey. In fact, "there is no phase of the work which the classroom teacher cannot do under certain conditions and with a little training." Granted that we are making some "beginnings in educational measurement," a field more difficult than that of the exact sciences, let us not encourage the novice to be content with dogmatic statements and "a little training."

KARL J. HOLZINGER

¹ Edward A. Lincoln, *Beginnings in Educational Measurement*. Philadelphia: J. B. Lippincott Co., 1924. Pp. 152.

School publicity.—The public schools of this country are founded on the belief of the American people in the power of education to produce efficient results. For years the ever expanding educational superstructure has been built on that foundation without considering whether our schools justify the popular faith which has been so loyally exhibited. What the schools of today need and what the supporting public is rightfully beginning to demand is reliable publicity. Until recently the general attitude of school men toward revealing to the public information concerning the actual progress of education has been one of indifference. In fact, school officials have frequently opposed such a policy.

Despite the need, comparatively little has appeared in educational literature concerning the important matter of school publicity. A worthy and needed contribution on this subject is made in one of the recent Riverside Educational Monographs. The volume is written jointly by Clyde R. Miller, director of publications in the Cleveland public schools, and Fred Charles, a member of the editorial staff of a Cleveland newspaper. Both men are eminently qualified by experience for the preparation of such a treatise, and a careful reading of the book assures one of their fitness for the task.

Three main themes are discussed in the monograph: (1) the various media and avenues of publicity, the public press in particular; (2) sound principles and methods of procedure; and (3) questionable practices and pitfalls to be avoided. There are nine chapters dealing with the following topics: "The Avenues to Public Understanding," "Publicity within the School System," "Miscellaneous Points of Contact," "Information Service," "What Is News?" "Contact of School and Press," "Student Publications," "Some Features of a Constructive Program," and "Summary and Conclusion."

If we were to name one dominant thought which is repeatedly emphasized in the various chapters, it would be, "Once the public sees the problems and needs of the school the support will be assured" (p. 6), or, to use another quotation, "In the long run education cannot be a strong structure in a democracy unless it rests upon a broad base of popular understanding and approval" (p. 134). Naturally, then, not only is the use of school publicity justified but it becomes necessary, and there are multiplying evidences that this fact is now appreciated by progressive school officials.

The volume should excite constructive thought and should lead to the formulation of a publicity program for every school system. Whether or not all readers will believe alike with regard to the ever increasing responsibilities which, according to the authors, the school must assume, they will agree that there is an important problem of school publicity which educational leaders must meet and solve. The monograph is full of interest and inspiration. It should be read and welcomed by school administrators in particular and by all teachers and citizens interested in educational advancement.

WILLIAM A. RICHARDS

¹ Clyde R. Miller and Fred Charles, *Publicity and the Public School*. Boston: Houghton Mifflin Co., 1924. Pp. x+180. \$1.20.

Civics for junior high schools.—Despite the fact that the new civics movement has almost arrived at the end of its second decade, the major objectives and ideals of the movement are only beginning to find ready acceptance by authors in their choice of content materials. Notwithstanding the acceptance of the newer aims and ideals by teachers, textbooks still appear in which the subject-matter is made up of a curious mixture of the functional and encyclopedic approach. Two new textbooks bear witness to an earnest attempt on the part of the authors to adapt their content to the demands of the new civics movement.

The author of the first¹ of these books expresses her point of view in the following terms:

She [the author] has led pupils, first, to analyze life in the United States into its fundamental activities; second, to discover for themselves that government is only an organization made and run by the people to fit these activities; third, to realize that in proportion as life is simple or complex, government must also be simple or complex; and, fourth, that since changes in the manner of living are constantly taking place, changes in government must also be made constantly [p. iii].

The text comprises twenty-two chapters, without any organization of the chapters into larger subdivisions. They deal with matters that range all of the way from the pupil's immediate surroundings—the home and the school—to international relations, from the functional groups in the community to the machinery of government. Each chapter is followed by a suggestive list of "Problems and Exercises."

An organization of the chapters of the book according to a formulated set of principles seems to be lacking. The content is presented in language that may be apprehended by pupils of junior high school age, and many of the interpolations of concrete sketches and accounts are effectively used. The text abounds, on the other hand, in lists of activities, duties, and functions. While there is nothing inherently unsound in such lists, there is always the danger that the teacher may demand memorization of the lists and thus fail to secure valid results; furthermore, the restless boy will likely say, "On with the story," and then skip such lists. The exercises are, on the whole, excellent, although some of them are probably beyond the level of the junior high school pupil.

The second text² contains twenty-six chapters, grouped into four parts: "The Communities around Us," "Our Community Life and Its Problems," "The Government of American Communities," and "American Citizenship." The general organization of the chapters is, for the most part, similar to that found in several texts in the field. Each chapter contains an adequate treatment of the topic under consideration as well as questions, a list of references, and a "Pronouncing List." There is also a section devoted to "Suggestions

¹ Grace A. Turkington, *Community Civics: Life, Liberty, and the Pursuit of Happiness in the United States*. Boston: Ginn & Co., 1923. Pp. viii+560+xxiv.

² James Albert Woodburn and Thomas Francis Moran, *The American Community: An Elementary Text in Community Civics*. New York: Longmans, Green & Co., 1924. Pp. xviii+456.

for Teachers," followed by plans for community study and student government. The format of the book is similar to that of the book by the same authors entitled, *The Citizen and the Republic*.

The volume as a whole is well written, although in parts it borders on the encyclopedic treatment rather than the functional. This is particularly true in the latter part of the book, which includes a heavy factual treatment of the machinery of government together with statements of qualifications of officials and similar materials which might well be used on the senior high school level. The earlier chapters will be readily understood by junior high school pupils, but the style becomes heavier as the book progresses. More emphasis is placed on elements of government than is common in most texts, while the broader sociological import of some of the content seems to be inadequately treated. The teaching aids vary in quality; there are a large number of illustrations; the "Topics and Questions" are largely informational and conventional in character, while many of the references, particularly on government and economics, are better adapted for use on the senior high school or college level.

Both texts, then, represent worth-while efforts to embody the content of the new civics, and, while each presents some features of doubtful value from the point of view of the reviewer, both are worthy of examination by classroom teachers in civics.

W. G. KIMMEL

*A collection of educational essays.—Twenty-five Years of American Education*¹ is the title of a volume of essays written by former students of Professor Paul Monroe in appreciation of his quarter-century of service to Teachers College, Columbia University. It was considered appropriate by the authors "that the tribute to Dr. Monroe should take the form of a collection of essays that would summarize the achievements in education of the past twenty-five years and that would also indicate in some measure the large field that still remains to be developed" (p. vii).

Following a fitting introduction by Henry Suzzallo on the influence and achievements of Professor Monroe, there are sixteen chapters representing the work of seventeen contributors and covering the field of American education from the historical background to the schools of the Philippine Islands. A few titles will suggest the general trend of the work: "University Study of Education" (I. L. Kandel), "Tendencies in Educational Philosophy" (W. H. Kilpatrick), "Development of Educational Psychology" (D. B. Leary), "Development of Tests and Measurements" (J. B. Sears), "Development of Method" (W. A. Maddox), "Public School Administration" (E. P. Cubberley), "Public School Finance" (F. H. Swift), and "Secondary Education" (A. J. Inglis).

¹ *Twenty-five Years of American Education*. Edited by I. L. Kandel. New York: Macmillan Co., 1924. Pp. xvi+470.

Among the chapters that stand out for their excellence are those by Cubberley and Inglis. Each reads like the résumé of a master. Swift's contribution should receive the attention of every student of educational finance. Sears has done well in his review of the measurement movement. The chapter on the development of educational psychology is somewhat provincial—perhaps pardonably so. The discussions of education in our island possessions are filled with valuable material not easily obtainable elsewhere.

The book is a fitting tribute of grateful students to a great teacher and a constructive leader in this modern era of educational research.

FREDERICK S. BREED

A text in educational sociology.—In recent years the relation of sociology to education has attracted the attention of both educators and sociologists. The result has been a number of books which attempt to utilize the contributions of sociology in the solution of educational problems. The latest contribution¹ in the field claims to establish a foundation for the new science, educational sociology.

The text is organized into two main divisions. The first part, dealing with the general principles of educational sociology, comprises about three-fourths of the book, while the second part, or the remaining fourth, is devoted to the scientific methods employed in determining the objectives of education. The allotment of space to these two phases of the subject is typical of the place that each phase has occupied in the field of educational sociology. Heretofore, the theoretical phase has received too much attention in textbooks; it is a matter of encouragement that it has been compelled to yield some of its emphasis.

Part One begins with a discussion of the place of education in society and the function of the school in education. Following this, the discussion leads off into an elucidation of the scientific construction of the curriculum. The point of view expressed is that education must prepare for life; with this theory established, the discussion continues with a consideration of education and democracy in relation to vocational guidance. In the remainder of Part One the point of view is substantially as follows: The job of education cannot be met by the school acting alone. Hence the contribution of other agencies, such as the family, the church, the press, and fraternal organizations, must be given a place in any discussion of the educational forces in society. In addition to the primary and secondary group institutions, such sociological phenomena as socialization, social control, and social progress have great significance for the work of the educator.

Part Two is devoted to a description and formulation of methods of quantitatively controlled research. The author makes this subject concrete by giving the results of some studies in which he employed the methods which he describes. The character of his discussion of research methodology is

¹ Charles C. Peters, *Foundations of Educational Sociology*. New York: Macmillan Co., 1924. Pp. x+488.

apparent from the following chapter titles: "Scientific Methods of Isolating the Objectives of Education," "The Survey Method of Deriving Norms," and "Finding Residual Functions of the School." Throughout the three chapters the author draws heavily from the work of Bobbitt, Snedden, and Charters, as well as from the results of his own unpublished researches.

A systematic treatment of the field of educational sociology is a difficult task. In the first place, the subject-matter is likely to contain many topics which are unrelated unless bound together by an unusual synthesis of the whole field built around some unifying principle. It is in the failure to provide a unified organization for the content of Part One that the present author most flagrantly errs. The reviewer cannot see why the author places in the midst of a theoretical discussion of the function of education in society a discussion of the technique of curriculum construction, especially when this topic is directly related to the topics treated in Part Two. Furthermore, the transition is not very clear between such topics as vocational guidance, the cold-storage principle in education, and educative agencies other than the school. In fact, there seems to be little justification for the order of the chapters in Part One. This makes the interrelation of the principles of educational sociology quite bewildering and nebulous.

On the other hand, the text reveals a significant strength in Part Two, because of its emphasis on techniques for gathering objective data on which to base an adequate study of educational sociology. The author maintains consistently that the most pressing problem in the field of educational sociology is the development of scientific methods for the reconstruction of the curriculum. Furthermore, he skilfully pursues his problem by suggesting at the conclusion of each chapter a series of practicable research projects for the student to carry out in connection with his class or school work. The emphasis on research objectively conducted is prominent throughout the text and is important for the field of educational sociology. The reviewer cannot understand, however, why this research should be confined merely to curriculum reconstruction, for the province of educational sociology surely is more comprehensive than the problem of the curriculum.

The author has constructed the book so that it should be valuable as a text for class use. The bibliographies concluding each chapter are carefully selected and helpfully annotated. In addition, the author has inserted problems and questions in the midst of important discussions which compel reflective thinking on the part of the reader. Finally, the author completes the text with three valuable appendixes. The first gives tentative lists of objectives in education; the second provides a detailed analysis of one objective of cultural education, while the third gives a true-false and multiple-answer test of general information with sociologically determined weightings.

In spite of the criticisms offered, the book is perhaps the most complete and serious attempt that has been made up to this time to formulate the field of educational sociology. It should be serviceable in the classroom and

deserves wide use as a text. It should be valuable for administrators and teachers in orienting their work in the whole educative process; and it should do much toward substituting the course in educational sociology for the course in the principles of education for those normal-school and college students who are unfamiliar with the scope and significance of the scientific literature in the field of education.

UNIVERSITY OF MICHIGAN

HOWARD Y. McCLUSKY

A mathematics series for the junior high school.—For many years educators have recognized the fact that certain psychological principles should be employed in the organization of courses and the making of textbooks. They maintain that adolescent boys and girls learn best those things in which they are interested and that the most interesting things are those which are adapted to the needs of the pupil's everyday life. In a recent series of junior high school mathematics texts¹ the authors have attempted to embody the application of psychological principles.

The following are the outstanding features of the series: (1) Problem situations are presented. In introducing each topic, a practical everyday problem calling for solution is discussed with the pupil so that he may become acquainted with the principles involved and their relation to his own needs. (2) The pupil is challenged in that he is asked to tell how he would solve the given problem or state what deductions he would make from the known mathematical facts. Thus he is stimulated to develop habits of resourcefulness and independence. (3) The inductive method of approach is employed. Through carefully selected material from intuitive geometry, the pupils are enabled to experiment and discover many mathematical principles for themselves. (4) Provision is made for individual differences by grading the exercises in accordance with the varying abilities of pupils. (5) A number of everyday projects, timed practice tests, and selections from standardized tests are distributed throughout the books for the purpose of arousing greater interest in the work.

The books are well illustrated and should be very attractive to the pupils who use them. They are also teachable. There are, however, several noticeable defects in the series. There is a marked lack of continuity in the subject-matter. For example, on one page the student is studying similar triangles and on the next he is abruptly introduced to the subject of buying and selling lumber. There is no apparent relation between many of the topics which comprise a given unit. The authors have also failed to make use of algebra in the first book. Instead of developing the equation idea, they merely employ one type of the equation, namely, the formula. This is divided into cases. A third objectionable feature is the lack of illustrative exercises within the units.

¹ Raleigh Schorling and John R. Clark, *Modern Mathematics*. Seventh School Year, pp. xvi+256, \$0.88. Eighth School Year, pp. xviii+254, \$0.88. Ninth School Year, pp. xiv+382, \$1.36. Yonkers-on-Hudson, New York: World Book Co., 1924.

In the second book many interruptions occur. The first half of the book is a continuation of secondary-school mathematics, while the second half is largely arithmetic. The third book is weak, being a course in the ordinary algebra of the first year of the high school. Here the equation idea is developed as in the conventional first course in algebra. A little of the third-year algebra is included, thus making the book rather heavy for the ninth grade.

The series, however, is a distinct advance over the traditional type of mathematics text for the seventh and eighth grades and should find favor with many teachers.

C. A. STONE

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

- ALMACK, JOHN C. *Education for Citizenship*. Boston: Houghton Mifflin Co., 1924. Pp. xviii+288. \$2.00.
- BAIN, WINIFRED E., BURNS, GERTRUDE, and VAN SISTINE, EVA JANE. *A Practical Handbook for Students in Observation, Participation and Teaching in Kindergarten, First, Second, and Third Grades*. Chicago: University of Chicago Bookstore, 1924. Pp. vi+38. \$0.65.
- BETTS, GEORGE HERBERT. *The Curriculum of Religious Education*. New York: Abingdon Press, 1924. Pp. 536. \$3.00.
- BURNHAM, WILLIAM H. *The Normal Mind*. New York: D. Appleton & Co., 1924. Pp. xx+702.
- CARROTHERS, GEORGE E. *The Physical Efficiency of Teachers*. Teachers College Contributions to Education, No. 155. New York: Teachers College, Columbia University, 1924. Pp. x+80.
- CHAPMAN, J. CROSBY, and COUNTS, GEORGE S. *Principles of Education*. Boston: Houghton Mifflin Co., 1924. Pp. xviii+646. \$2.75.
- MORRISON, HENRY C. *The Financing of Public Schools in the State of Illinois*. Report of the Educational Finance Inquiry Commission, Vol. IX. New York: Macmillan Co., 1924. Pp. xiv+162.
- PYLE, WILLIAM HENRY. *Psychological Principles Applied to Teaching*. Baltimore: Warwick & York, Inc., 1924. Pp. vi+198.
- RUGGLES, ALLEN MEAD. *A Diagnostic Test of Aptitude for Clerical Office Work*. Teachers College Contributions to Education, No. 148. New York: Teachers College, Columbia University, 1924. Pp. viii+86.
- SPAIN, CHARLES L. *The Platoon School*. New York: Macmillan Co., 1924. Pp. xviii+262.
- UHL, WILLIS L. *The Materials of Reading*. Newark, New Jersey: Silver, Burdett & Co., 1924. Pp. xiv+386.
- WILLETT, GEORGE W. *The Public School Debt in Illinois*. Report of the Educational Finance Inquiry Commission, Vol. XI. New York: Macmillan Co., 1924. Pp. xvi+98.

BOOKS PRIMARILY FOR HIGH-SCHOOL TEACHERS AND PUPILS

- GRAY, CARL WILLIAM, and SANDIFUR, CLAUDE W. *Laboratory Manual* (to accompany Gray, Sandifur, and Hanna's *Fundamentals of Chemistry*). Boston: Houghton Mifflin Co., 1924. Pp. xii+138. \$0.92.
- GREENBERG, JACOB. *Second French Book*. New York: Charles E. Merrill Co., 1924. Pp. viii+304. \$1.20.
- GREENLAW, EDWIN, and MILES, DUDLEY. *Literature and Life*, Book Four. Chicago: Scott, Foresman & Co., 1924. Pp. xiv+786. \$2.40.
- HAGAR, HUBERT A., and SORELLE, RUPERT P. *Applied Business English and Applied Business Correspondence*. New York: Gregg Publishing Co., 1924 [revised]. Pp. x+144.
- HALL, GUILLERMO. *All Spanish Method*. Yonkers-on-Hudson, New York: World Book Co., 1924. Pp. xii+452. \$2.40.
- HAMILTON, ARTHUR, and VAN HORNE, JOHN. *Elementary Spanish Grammar*. New York: Century Co., 1924. Pp. x+326. \$1.50.
- KAUFMAN, PAUL. *Outline Guide to Shakespeare*. New York: Century Co., 1924. Pp. xvi+326. \$1.75.
- KNICKERBOCKER, WILLIAM E. *French Composition and Grammar Drill*. New York: D. Appleton & Co., 1924. Pp. x+164.
- KULLER, FRANKLIN A. *Helps to the Study of Ancient History*. New York: D. C. Heath & Co., 1924. Pp. iv+108. \$0.60.
- MARQUINA, EDUARDO. *En Flandes se ha puesto el sol*. Edited by Ernest Herman Hespelt and Primitivo R. Sanjurjo. Boston: D. C. Heath & Co., 1924. Pp. xviii+272. \$1.12.
- MCMALE, C. F. *Un Viaje a Sud América*. Boston: D. C. Heath & Co., 1924. Pp. x+284. \$1.32.
- PATTERSON, S. G. *Intermediate French Prose Composition and Conversation Builder*. Chicago: Benj. H. Sanborn & Co., 1924. Pp. x+262.
- PIÑOL, FRANCISCO. *Historietas*. Yonkers-on-Hudson, New York: World Book Co., 1924. Pp. viii+162. \$1.28.
- SCOVILL, HIRAM T. *Elementary Accounting*, Part I. New York: D. C. Heath & Co., 1924. Pp. xii+436. \$3.00.
- SONNENSCHN, E. A., WILKINSON, C. S., and ODELL, W. A. *The Gateway to Latin Composition*. New York: Oxford University Press, American Branch, 1924. Pp. 244. \$1.20.
- SWEENEY, HENRY W. *Bookkeeping and Introductory Accounting*. New York: McGraw-Hill Book Co., Inc., 1924. Pp. xii+546. \$4.00.
- TUSTISON, F. E. *Job Sheets in Home Mechanics*. Milwaukee, Wisconsin: Bruce Publishing Co., 1924. \$0.64.
- VOSBURGH, WILLIAM LEDLEY, GENTLEMAN, FREDERICK WILLIAM, and HASSLER, JASPER O. *Junior High School Mathematics*, Second Course. New York: Macmillan Co., 1924 [revised]. Pp. x+256.
- WEBB, HANOR A., and DIDCOCK, JOHN J. *Early Steps in Science*. New York: D. Appleton & Co., 1924. Pp. xvi+692.

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AND OTHER MATERIAL IN PAMPHLET FORM

- The Family Life and the Teaching of Home Economics.* Monographs on Vocational Education, No. 1, 1924. Chicago: Vocational Education Association of the Middle West (L. W. Wahlstrom, Secretary; 1711 Estes Avenue), 1924. Pp. 34. \$0.25.
- KING, FLORANCE B., and CLARK, HAROLD F. *Foods Test for Grades 6 thru 12.* Bloomington, Indiana: Indiana University Bookstore, 1924. Pp. 8.
- KORNHAUSER, ARTHUR W. *How to Study.* Chicago: University of Chicago Press, 1924. Pp. viii+44.
- POWERS, S. R. *Powers General Chemistry Test.* Yonkers-on-Hudson, New York: World Book Co., 1924.
- Recent issues of the Bureau of Education:
- Bulletin No. 4, 1924—*A Type Rural High School.*
- Bulletin No. 6, 1924—*Statistics of Land-Grant Colleges.*
- Bulletin No. 8, 1924—*Visual Education Departments in Educational Institutions.*
- Bulletin No. 9, 1924—*Intelligence of Seniors in the High Schools of Massachusetts.*
- Bulletin No. 23, 1924—*Government Publications Useful to Teachers.*
- STALEY, SEWARD C. *The Program of Sportsmanship Education.* Bureau of Educational Research Circular No. 28. University of Illinois Bulletin, Vol. XXI, No. 49. Urbana, Illinois: University of Illinois, 1924. Pp. 28.
- STREITZ, RUTH. *Educational Diagnosis.* Bureau of Educational Research Circular No. 27. University of Illinois Bulletin, Vol. XXI, No. 41. Urbana, Illinois: University of Illinois, 1924. Pp. 16.
- Thrift Education.* Washington: National Education Association, 1924. Pp. 80. \$0.50.
- Twenty-fourth Annual Report of the Director of Education.* Manila, Philippine Islands: Bureau of Education, 1924. Pp. 160.

MISCELLANEOUS PUBLICATIONS

- CORSAN, GEORGE H., SR. *The Diving and Swimming Book.* New York: A. S. Barnes & Co., 1924. Pp. xviii+162. \$3.00.
- KIREPATRICK, MARION GREENLEAF. *Teaching: A Business.* Boston: Little, Brown & Co., 1924. Pp. 202.
- STALEY, SEWARD CHARLE. *Games, Contests and Relays.* New York: A. S. Barnes & Co., 1924. Pp. viii+354. \$3.00.

